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ABSTRACT

Intended to provide a comprehensive picture of the Appalachian Community Service Network (ACSN), this report documents its evolution from a federally funded regional educational experiment to a nonprofit corporation delivering educational and informational programming via commercial satellite to cable subscribers across the nation; ACSN's changing objectives, organizational structure and programming emphasis in response to the commercial marketplace; and the corporation's plans to capitalize on foreseeable opportunities. A general, interpretative account is given of the background history of the Appalachian Educational Satellite Project (AESP) experiment, which supplied graduate credit courses to teachers located in remote areas of the Appalachian region using an experimental NASA (National Aeronautics and Space Administration) satellite from 1972 to 1975. The maintenance, refinement, and expansion of the original mission of AESP from 1976 to 1978 are described, including the development of a strong research and evaluation program to guide network operations. The incorporation of ACSN in 1979 as an independent agency is documented, and it is noted that the network provided 64 hours per week of programming to more than 1.5 million homes in 42 states in 1982. A look at current needs and problems and speculations on the future of the network conclude the report. A number of exhibits and appendices are included. (LMM)

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Final Report
of the
Appalachian Community Service Network
to
The National Institute of Education

The Reshaping of an Innovation

1970 - 1982

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RC010921

Final Report of the
Appalachian Community Service Network
to
The National Institute of Education

(NIE-IA-80-003)

The Reshaping of an Innovation

1970 - 1982

June 30, 1982

1200 New Hampshire Avenue, N.W. - Suite 240
Washington, D.C. 20036

IR010921

Abstract

Abstract

In 1973 an innovative experiment in the application of space-age technology to education was sponsored by the Appalachian Regional Commission (ARC) and funded by the National Institute of Education (NIE).

This experiment, the Appalachian Education Satellite Project (AESP), used the NASA communication satellite, ATS-6, to provide graduate credit education courses to teachers in 15 Appalachian communities. It became a successful demonstration that achieved its objectives and created a demand for the establishment of an operational telecommunications network to continue the service. In 1982 ACSN delivers educational and informational programming by satellite to over 1.5 million cable subscribers located in 42 states.

The evolution of the present network took place in three stages:

- 1972-75 - As part of the Appalachian Regional Commission (ARC), the Appalachian Education Satellite Project (AESP) used an experimental NASA satellite to deliver graduate credit courses to teachers located in remote areas of the Appalachian region.
- 1976-78 - After the initial portion of the ATS-6 demonstration, AESP maintained, refined, and expanded its original mission and continued the development of a strong research and evaluation program to guide network operations. By October 1978, AESP had demonstrated competency in the acquisition, scheduling, and delivery of public service telecommunication programming.
- 1979-1982 - AESP anticipated the success of commercial telecommunication satellites and the effectiveness of cable TV systems. The use of these technologies was soon reflected in the AESP operational design. In 1979 AESP became the Appalachian Community Service Network (ACSN) using the distribution potential of a commercial satellite to

enter the rapidly growing cable TV industry. ACSN now provides a full 64 hours per week of programming for viewers at home and at work.

ASEP thus evolved from a regional educational experiment to a national educational/informational program service accessible to literally millions of persons. ACSN, the successor to AESP, serves as an example of an operational entity that has been able to successfully make the transfer from a fully federally-supported project within a larger government program to a private non-profit corporation, well on its way to financial self-sufficiency. Significant achievements of AESP and ACSN during their development include:

- AESP became the first educational demonstration in history to offer public service programs to rural communities via satellite.

- The communications industry recognizes ACSN as the premier educational program service delivered via satellite to cable systems nationwide.

- ACSN was rated as the fastest growing national cable service in a survey conducted by CableVision magazine (reported in the Jan. 18, 1982 issue).

- ACSN is the only cable programming supplier with a full time commitment to the delivery of educational and instructional programs for adult viewers and learners.

- In 1982 ACSN is providing 3,300 hours (64 hours per week) of programming to more than 1,500,000 homes in 42 states to a potential audience of 4,500,000 individual viewers.

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Overview

Overview

In order to provide a comprehensive picture of ACSN and where it is going, and to supply an understanding of its past as well as the present and future, this report is documented in three sections: events prior to ACSN's incorporation; ACSN's changing objectives, organizational structure and programming emphasis in response to the commercial marketplace; and ACSN's plans to capitalize on foreseeable opportunities.

Part I is, therefore, concerned with the background history of the AESP experiment, how the experiences of supplying community services created a demand for continuation and expansion which culminated in the emergence of an independent agency — ACSN. Since much of this material has been covered in detail in numerous reports, publications, and news articles, the treatment here will be general and interpretative.

Part II traces the emergence and development of ACSN as it has moved toward self-sufficiency through the proposals, work plans, interagency agreements, and circumstances which molded the organizational design, the management practices, the objectives and the functioning of its Programming, Marketing, and Network Operations Divisions.

Part III takes a look at current needs and problems, and speculates on the future as ACSN prepares for growth beyond 1982.

To be more specific, the report is organized as follows:

Overview

A synopsis of what is included in the report.

Part I - The Stage Is Set.

Since much of this material has been covered in detail in the numerous reports, publications and news articles, the treatment here is general and interpretative.

A. General Background, 1970 - 73

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Part II - The ACSN Story

A. AESP Becomes ACSN

The discontinuance of the ATS-6 satellite service and the move to SATCOM I brought changes that resulted in the renaming of AESP and the reorganization and incorporation of ACSN, a tie-in with cable TV, and the move from community sites to home viewing.

B. A New Start

Traces the interaction of the interagency agreement, the annual proposals, the progress reports, and the special contracts that were made between ACSN, ARC, and NIE, 1976 - 1981.

C. The Growth of ACSN

ACSN finished 1981 with the fastest growth rate of any basic service cable network in the nation.

D. Evaluation and Research

From the beginnings of its operation as a network, AESP designed and carried out a comprehensive evaluation program. The detailed report of this function includes analysis of:

1. The AESP Experiment (1973 - 76)
2. Preparing to continue the project as a demonstration (1976 - 78)
    a. Needs assessment and updating
    b. Follow-up study of the participants in the original courses
3. Evaluation studies of major courses and workshops (1977 - 79)
4. Evaluation studies of user assessment and satisfaction (1978 -81)
5. Evaulation related projects (1980-82)

E. Organization Design

While the ACSN organizational design grew out of the experiences of the AESP experiment and the early years of the demonstration, it differed from AESP in both subtle and substantial ways.

F. Programming

ACSN programming evolved from graduate courses that were exclusively for teachers, to a multi-segment schedule for students, teachers, business, at-home viewers, and other discrete audiences.

G. Marketing

Marketing became a more positive force in helping ACSN become and remain competitively viable. The development of a sound and practical market approach is traced as ACSN moved toward achieving marketplace self-sufficiency.

H. Network Operations

Network Operations is responsible for the technical services essential to ACSN. This Division was not so much "designed" as it has "evolved" in response to various needs and priorities. The organization and procedures that now guide network operations are discussed.

I. ACSN - 1982

ACSN in 1982 is well on its way to financial viability and has established both an organization and schedule offering that are designed to continue ACSN's growth.

Part III - ACSN and the Future

ACSN is delivering program products to an audience that not only wants such programs but acknowledges that they make a difference in their lives. ACSN is, therefore, setting its goals and concentrating its efforts on taking advantage of this situation. Some of these future plans are discussed as ACSN looks ahead.

A. General

B. Corporate Organization

C. Future Ideas about Marketing and Programming

D. Conclusion

Appendix

As ACSN developed, certain threads are clearly recognizable as they cut across chronology, events, and happenings, and influenced ACSN's growth. They are outlined here in the conclusion of this overview to provide additional help in reviewing the relationships that occurred in ACSN operations. In general, they show how ACSN developed:

1. From a limited educational experiment with the objective of testing the feasibility of using satellite technology to improve educational opportunities in isolated rural Appalachian areas

   — To the establishment of a viable communication network of more than 45 affiliated community sites to provide services in the areas of education, health, industry, government, and social welfare

   — To eventually become an independent non-profit corporation that operates in the private sector, providing a service for home viewers via community cable TV systems;

2. From a federally financed project operated as a service to local communities in Appalachia

   — Through a transition period of diminishing federal funds and increasing dependence on financing from local sources, user fees, and cost sharing with participating schools and colleges

   — To become an independent non-profit organization, generating its own income from fees, service, sale of support materials, and related activities;

3. From a producer of courses in the field of graduate education and a broadening of programming to include workshops and special programs in additional fields such as health, business, and social services

   — To the development of programming procedures that are chiefly concerned with the discovery, adaptation, and use of superior courses, workshops, and programs that have been produced by others but still meet the specific needs of sponsoring agencies.

4. From a project administered by several members of the Educational Division of the ARC staff who served as part-time directors and assistants

   — Through an AESP management design that included

     - A central office staff housed in the ARC office, Washington, D.C.

     - A staff for the Resource Coordinating Center located at the University of Kentucky, Lexington, to develop and produce the programming and to carry out the research and evaluation

     - A staff of engineers and technicians to transmit programming to the ATS-6 satellite and assist with problems of installation, maintenance, and repair of site equipment

- A field staff of regional directors, site directors, class monitors, and secretaries to operate the local sites;

— To finally become an independent organization - ACSN

- With a Board of Directors, a corporate office, and the elimination of community receive sites and college-affiliated field sites such as the Resource Coordinating Center

- ACSN personnel are located at the corporate office in Washington, D.C., with the exception of technicians in production and engineering, currently located at the technical facility in Lexington, Kentucky.

- ACSN is now a registered corporation with bylaws, written management policies and procedures, and regularly scheduled Board meetings.

These four threads form a pattern that has given design and meaning to the organization, operation, and growth of ACSN. Keep them in mind as the story of ACSN unfolds.

Part I

The Stage is Set

Part I - The Stage Is Set

A. General Background, 1970 - 1973

ACSN did not suddenly appear as a "fait accompli," launched full grown as a panacea for the communications needs of Appalachia.

Neither, on the other hand, did ACSN "just happen" nor was it a "lucky accident or a flash in the pan."

The ideas which led to its emergence were nurtured and set in motion by a convergence of forces, trends, developments, technological improvements, and philiosophical beliefs that won acceptance in legislative halls, the marketplace, and the home; that modified and changed communication systems and educational opportunities; and that made the emergence of a company such as ACSN highly likely.

The relationship of some of these forces and trends formed the background for the emergence and growth of ACSN.

1. The formation of the Appalachian Regional Commission (ARC)

The beginning of ACSN goes directly back to a fundamental decision made by the U.S. Congress in 1965 to provide a special program and render specific assistance to a region which seemed rich in natural resources, yet was lagging behind the rest of the nation in its economic growth; was afflicted with higher unemployment and lower educational achievement; and was in need of improved medical, social, and cultural services.

The Appalachian Regional Commission (ARC) that was formed thus received a mandate to determine the causes of the region's problems and to initiate a positive program to develop the Appalachian economy and improve living conditions. Sooner or later ARC activities would have to consider education as an important element of regional recovery. ACSN was the result of the implementation of this awareness.

Another mandate from Congress to ARC asked the Commission to coordinate activities with other federal agencies and programs for the benefit of the Appalachian people. Interagency agreements between ARC, NIE, NASA, and NTIA made possible the development of experiments in education-communication and the funding of programs basic to the operation of ACSN.

Charged with the responsibility for Appalachia's economic and social development, ARC sponsored the building of roads, water and sewer facilities, hospitals, vocational-technical schools, and the acquisition of associated health and vocational equipment. But it soon became evident that more than facilities and equipment were needed. In the meantime, ARC had added a small education division to its staff and set up an education advisory committee to the Commission (1967) to study and suggest ways of relating educational needs to economic progress. As a result, it was proposed that several federal agencies develop an educational experiment to demonstrate the use of educational technology as a means of strengthening existing local educational programs in Appalachia.

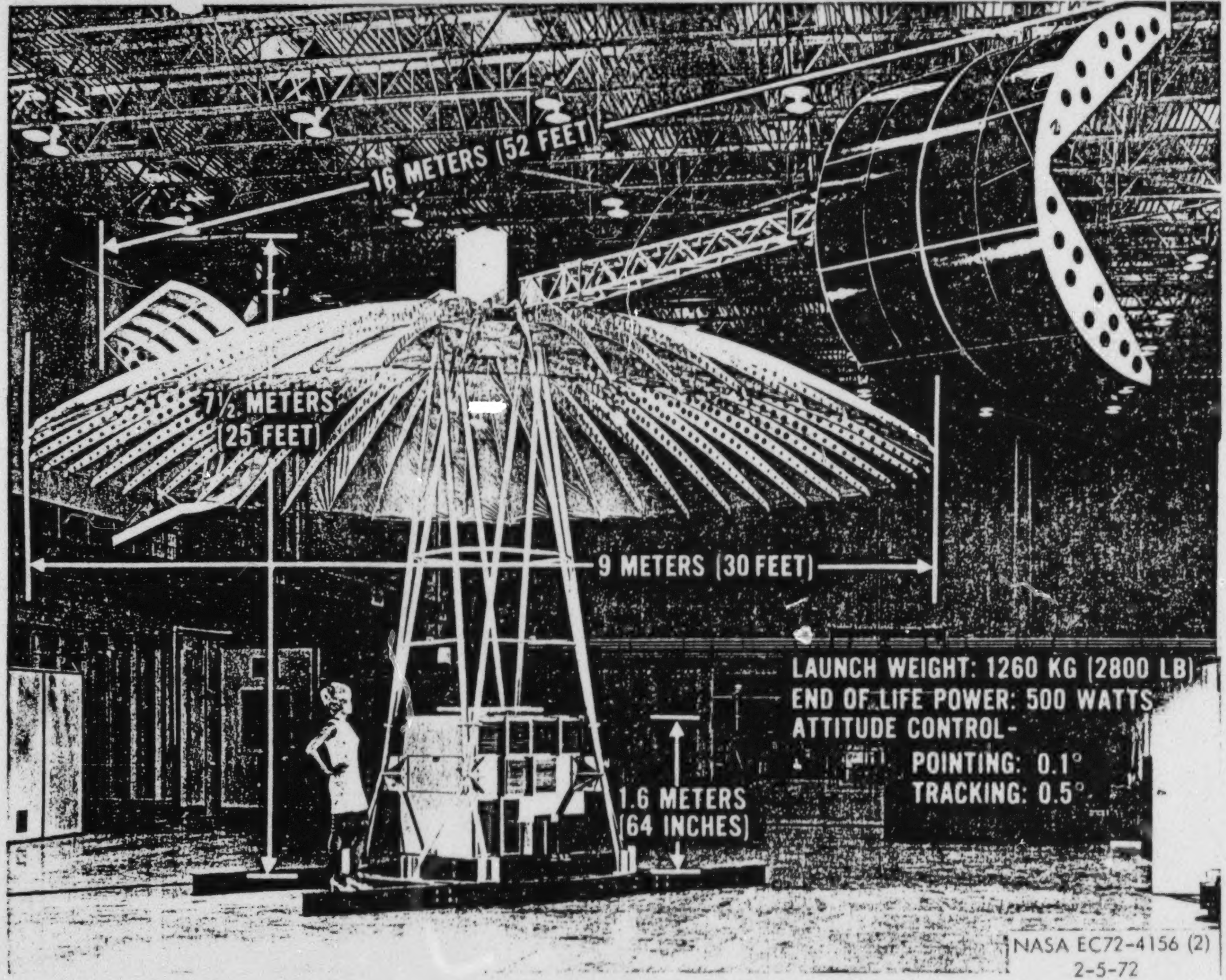
2. A change in the NASA approach to satellites

In the late 1960's, NASA decided to play a more aggressive role in developing applications for its ATS series of experimental communication satellites to better meet pressing social problems. This was a departure from the former policy of developing space technology but leaving applications to the private sector.

For some years, experimental satellites had been launched and successfully operated under federal or commercial sponsorship. They were used for specific technical and scientific purposes to gather data, test hypotheses, supply photographs, and relay radio and TV signals in such fields as aeronautics, meteorology, and communication. These satellites were very small and carried minimal equipment for limited experimentation or testing. They also required large and expensive ground installations to receive their weak signals. The first successful commercial communication satellite, Early Bird, was orbited in 1965 by COMSAT Corporation. By 1970 NASA had awarded a project to Fairchild Aircraft for the development of a satellite which reversed the former specifications and used a large powerful satellite capable of remaining in orbit more than 22,000 miles above the earth for a period of at least five years which would require only small, relatively inexpensive ground installations to receive its transmissions. (See Exhibit 1.)

NASA recognized the opportunities that were now possible to not only mount more complex and varied scientific experimentation, but also to add something that had not been tried before — "user experiments' to

EXHIBIT 1


16 METERS (52 FEET)
7½ METERS
(25 FEET)
9 METERS (30 FEET)
1.6 METERS
(64 INCHES)
LAUNCH WEIGHT: 1260 KG (2800 LB)
END OF LIFE POWER: 500 WATTS
ATTITUDE CONTROL-
POINTING: 0.1°
TRACKING: 0.5°

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test the feasibility of utilizing the satellites to help communities in need of assistance in education, health, economic, social, and cultural improvements. NASA called on other appropriate federal agencies to assist them with these feasibility studies.

3. The Educational Satellite Communication Demonstration

In 1971, NASA asked the Department of Health, Education, and Welfare to develop plans for using the ATS-6, which was to be launched in 1974, for a series of experiments designed to test the practicality of using satellites for effectively delivering educational and health information.

As a result, the U.S. Office of Education and later the NIE developed and funded the Educational Satellite Communication Demonstration — the largest, most complex application of technology to education ever attempted. The purposes of these cooperative demonstrations were:

a. To evaluate the feasibility of a satellite based distribution system for providing needed educational services to several isolated rural areas of the United States;

b. To test and evaluate using a variety of instructional materials, processes, and techniques;

c. To find out the degree to which the service is accepted;

d. To learn the cost of various ways to deliver the service;

e. To determine the most effective organizational arrangement for developing and using complex technologies in education.

ACSN came into existence because ARC applied for and became an important part of the Educational Satellite Communication Demonstration.

4. ARC and the educational needs of Appalachia

ARC had no previous experience in using satellites, but it did have educational relationships with Appalachia that provided an understanding of Appalachian problems and needs, and how to relate them to the improvement of the educational program. What was most important to ARC was not the operation and functioning of equipment or of technologies, but what could be done with the equipment and technologies to improve Appalachian education and community living.

In early 1968, ARC had received a grant from the U.S. Office of Education to review the educational needs of Appalachia. Arthur D. Little and Company was selected to survey the more than 32,000 Appalachian teachers and develop a teacher profile and needs assessment summary. This study showed that in-service education for teachers, especially in the areas of reading and career counseling, was the top priority educational need of Appalachia.

Later in 1971, the National Center for Educational Technology asked ARC to consider participating in a joint health-education technology (HET) experiment utilizing the ATS-6 communication satellite. ARC convened an Educational Telecommunication Task Force representing higher education, instructional media, and educational broadcasting to assist the Commission to prioritize its educational objectives and to make suggestions about how telecommunications might be used to achieve these objectives within the Appalachian Region.

The ARC also requested and received a grant from the U.S. Office of Education to investigate the feasibility of using satellite telecommunications for educational services in Appalachia. This grant produced a report prepared by the Center for Development Technology, Washington University, St. Louis, MO, which outlined existing and potential telecommunication services for the Appalachian Region.

After studying the various documents, reports, and recommendations made by the Task Force, Arthur D. Little and Company, Washington University, and members of its own staff, ARC authorized its education division to begin the preparation of a proposal requesting participation in the HET experiments. Thus ARC built its background for educational programming via satellite.

5. The development of Educational Service Agencies in Appalachia

As part of its work in education in Appalachia, ARC had funded the development of agencies to promote educational services. These were often named Regional Education Service Agencies (RESAs) and generally one such agency served more than one school, school district, or county school system. This fostered cooperative action between schools and across district, county, and state lines. Each RESA had a contract with ARC and invited participation by all the schools, colleges, and allied organizations in the area being served. ARC thus had an already established organization for distributing programming which could accept responsibility for advertising, organizing viewing areas, registering participants, conducting classes, and operating the program.

The ARC had made contacts with educational institutions of higher learning and had provided ARC funds for technical and vocational facilities, equipment, industrial retraining programs, and career education courses. These contacts provided the basis for further talks when ARC became interested in proposing that local colleges and universities join in granting academic credit for the satellite courses.

6. ARC establishes operational practices

The experiences of ARC and its educational division as it developed its general program resulted in the establishment of two practices that were fundamental to ACSN development.

One practice was to base all programming on the specific needs of the local community, and to develop procedures for discovering and keeping current these needs. As a result programming was always practical, timely, useful, and attractive to its clientele.

Another practice also became a standard procedure — using input from staff and field personnel, local supporting agencies, and later local citizens, advisory boards in decision making, program development, and operations. This type of interaction became a morale builder and an incentive to personnel, inspired community confidence, and insured that a wide range of possibilities would be considered in the development and operation of the ARC program.

B. The Beginnings, 1972 - 1974

1. The ARC proposal to participate in the Education Satellite Communication Demonstration

By the spring of 1972 the ARC was ready to act. The situation had been analyzed; Appalachian educational needs were known and recognized as urgent; spectacular advances and improvements in telecommunication were anticipated; agencies with responsibilities in helping with community problems were being encouraged to use educational technology; NASA was offering the use of satellite time for experimental projects in education; telecommunication studies were made for ARC by independent organizations; task forces and colleges recommended that ARC actively join in the experimentation that was about to begin.

In May 1972, the Education Division of ARC began the preparation of a proposal to the National Center of Educational Technology requesting participation in the HET experiment. The proposal outlined in-service education in the teaching of reading and career education as the recommended services and included a description of the structure to disseminate the programming which utilized the ARC funded Regional Service Agencies (RESAs) and the establishment of a Resource Coordinating Center at a selected university in one of the Appalachian states.

ARC named its experiment the Appalachian Education Satellite Project (AESP). The proposal was accepted and became a part of the Education Satellite Communication Demonstration supported by NIE. AESP had as its major objective testing the feasibility of providing products and services to meet educational needs via telecommunication in the large rural Appalachian area. The AESP program was designed to improve the effectiveness of the classroom teacher, thereby upgrading the quality of reading and career education instruction available to Appalachian students. The question to be resolved by the AESP was — could the linking together of existing organizations, like the Regional Education Service Agencies (RESAs), and communications satellites result in more effective and significant in-service teacher training? The project was an experiment to test the feasibility of producing high quality, revenue-shared courses in multiple disciplines for cross-state delivery via satellites.

Specifically, the AESP was an experiment in the applications of space age technology to education which:

a. Explored the feasibility of using fixed-broadcast satellites and linking terrestrial communications systems to delivery educational services;

b. Examined the effectiveness of the instructional sequence of televised lecture, audio questions with immediate feedback, ancillary practice activities, and review testing;

c. Broadened understanding regarding workable ways to organize trans-state projects conceived to solve common problems when greater economy and quality is promised by large-scale delivery and resource pooling;

d. Developed procedures for preparing software for heterogeneous audiences and varied hardware systems;

e. Demonstrated the feasibility of developing central computerized information systems for delivery via satellite;

f. Demonstrated the feasibility of utilizing future communications satellites with increased broadcast channels and air time, in order to increase options and make quality education equally accessible to all parts of the country.

2. Organizing the Appalachian Education Satellite Project (AESP)

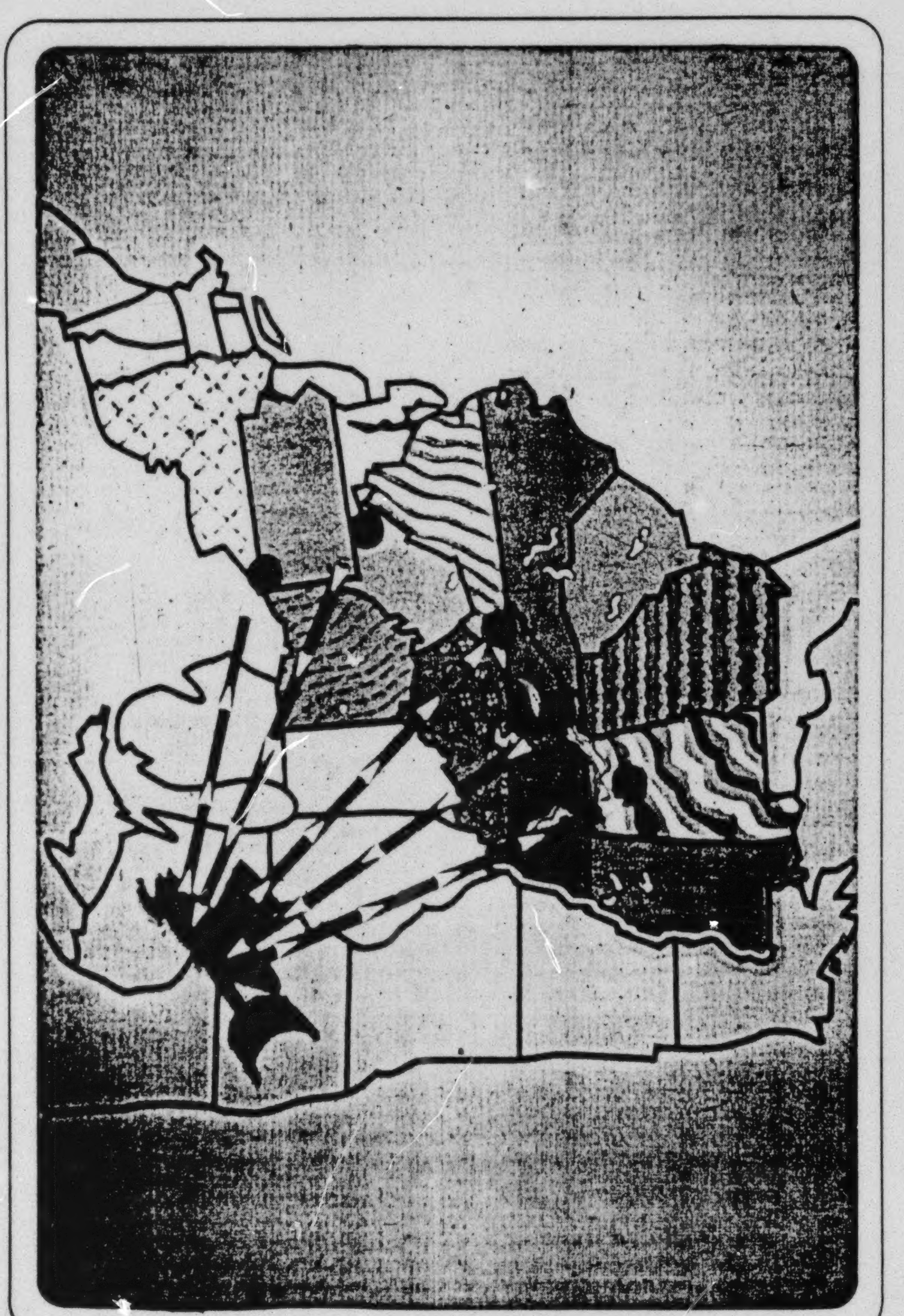
After the proposal was accepted, the ARC met with representatives of the 16 RESAs who responded to the invitation to participate in the project. Discussions were held about their geographical locations, available technology, the educational programs in their areas, relations with local colleges and their in-service education accomplishments. Using this information to reach a decision, a panel of outside experts designated five of the sites as main sites — in New York, Maryland, Virginia, Tennessee, and Alabama (See Exhibit 2). Two ancillary sites were later selected for each main site bringing the total number of sites to 15. Eight Appalachian states were represented in these initial activities of AESP.

The ARC then convened a pre-bidders' conference to select a Resource Coordinating Center. Fourteen institutions of higher education attended. The University of Kentucky was recommended by the ARC and approved by NIE.

The newness of the idea, the smallness of the budgetary allocations, the limited scope of the experiment, the realization of the tremendous potential of the media, and the opportunity afforded to develop a useful model — all dictated that the project be operated with care, prudency, frugality, and seriousness.

These events and the trends and developments they produced all are a part of the background mix out of which ACSN grew. In turn, ACSN has contributed to the unfolding program of improved, cost-effective services

EXHIBIT 2



in educational communication.

The report now turns to the experience of operating AESP and its successful transition to ACSN.

C. The AESP Experiment

AESP became the first experiment in history to offer public service programs to rural communities via satellite.

The experiment was an unqualified success and created enthusiasm for the use of satellite distributed educational programs.

1. It created a quality program by producing courses worthy of graduate credit.

AESP did not just use satellite technology to deliver educational programs to the remote areas of Appalachia. It carefully developed unique courses that took full advantage of television, radio, tape recording, and cinema techniques; and explored the interactive capabilities of the technology.

The courses sought to involve the participants in an active way, provide them with excellent support materials, planned activities, reading assignments, time for class discussions, and required the development of individual projects. Direct contacts among participants, course instructors, and subject matter specialists were arranged through the use of two-way seminars scheduled at regular intervals, which enabled the students to raise questions or voice opinions with the course instructors. Multi-channel pre-recorded audio tapes were also prepared to reinforce concepts developed during lesson presentations.

2. Its technology worked.

Reception from the satellite was dependable and provided an excellent video picture and audio sound. The major equipment — the receiver and the two-way audio — were rugged, reliable, and simple to operate. The antenna was easily adjusted to receive the broadcasts. There were few breakdowns or interruptions of service. As a result, the technical operations enhanced the program, increased the interest of the participants, and provided viewers with consistent quality reception.

3. Its dissemination system reflected local interests, needs, and active local participation.

At the local level the programs were managed and implemented by groups of Educational Service Agencies (RESA's) that provided a vital link with the community for the selection and development of programs.

When ARC decided to propose a project to test the feasibility of using satellite technology to improve education in Appalachia, it indicated that specific goals would be developed cooperatively with the participating local Appalachian agencies (the RESA's). Thus from the time it was established, ACSN has followed the practice of soliciting and using local involvement to determine its philosophy, policies, practices, program, and activities.

Local input means essentially that securing local ideas, opinions, and suggestions is encouraged and systematically obtained, analyzed, and used in decision making, program development, and operations. As a result, ACSN had grassroot contacts in all the communities that used its program.

4. Its courses were accredited and earned graduate credits.

More than 12 Appalachian institutions of higher learning granted academic credit for AESP courses. This unprecendented action was and has continued to be very popular with teachers, especially those who live in remote areas and are unable to attend classes at a specified time or place.

5. Its systematic evaluation appraisals clearly showed that:
   a. It was technically feasible to broadcast graduate courses to remote areas;
   b. Students learned what was taught and applied it in their work;
   c. Students frequently preferred the ACSN satellite courses to classroom teaching;
   d. The courses were cost effective when compared to the cost of a university-based program;
   e. There was a large potential audience for the courses.

6. It filled a community need not otherwise easily attainable, especially in remote, isolated areas.

7. Its personnel was enthusiastic.

The staff became an effective working group through the use of periodic system-wide meetings, teleconferences, and publications. Each one was kept informed of the progress, success, and problems of the project and had a voice in decision making so that each one felt a personal stake in the successful development and operation of the system.

8. It created a demand for the permanent establishment of a communication network to continue and expand the services.

   This demand resulted in the formation of a demonstration project which led to the emergence of ACSN.

9. In its first year of operation, 1974 - 75, AESP had achieved its stated objectives:

   a. To test whether quality courses can be centrally developed with maximum input from region-wide institutions and meet the needs of diverse audiences of teachers;
   b. To develop and test whether an instructional design utilizing satellite and non-satellite delivery activities can be effective in terms of learning, and whether participation can be administered locally by a facilitator rather than a content expert;
   c. To determine whether accreditation can be granted by diverse local institutions of higher education for a regional set of graduate courses;
   d. To demonstrate the technological effectiveness of a communication satellite network capable of delivering high quality video programming with two-way audio interaction to low cost earth stations;

e. To design an adequate interagency system that will ensure greater understanding and maximum participation of the constituents.

These objectives were achieved with a high degree of success. In emphasis, however, the technology was secondary to program development and delivery, and to organizational structure development.

The year was now 1975. AESP was indeed a success. The enthusiasm and good will that had been created, the realization that the use of satellite technology was effective and feasible, and the recognition that something positive could be done about Appalachian needs all joined as a background for the establishment of a service communication network to better serve Appalachia.

D. The Transition Begins

In September 1975, the AESP experiment ended. ATS-6 was moved to a new orbit over Africa to enable India to conduct a year-long experiment in transmitting education, health, and cultural programs to its isolated villages. Circumstances had provided the first of many challenging problems to face the AESP innovation. The experiment had ended and the satellite was gone —what could be done?

Since some funds were unexpended in its budget, the AESP staff did more than bring the experiment to an orderly close and prepare the necessary summaries, reports, and evaluations. The staff discussed the accomplishments and found interest throughout the region in finding a way to continue the work. When this interest was discussed with ARC and NIE, they decided that the experimental results and suggestions should be taken back to local and state institutions and that these agencies be asked whether an expanded experimental demonstration would help them meet their needs.

The overwhelming response to the visits, the questionnaires, and the interviews of state and local officials was that the AESP system was a viable supplementary system for the provision of needed services to a wide range of community users. The federal agencies were urged to develop a plan to expand the previous limits of the AESP experiment to a truly regional demonstration.

Public support for the AESP programming made itself felt throughout Appalachia to such an extent that local citizens began urging that a demonstration network be established as a needed follow-up to the AESP experiment.

AESP thus survived and began a series of adjustments, restudying the situation, enlarging the goals, documenting the needs, and developing proposals to continue the services and to take advantage of technical improvements and trends in the field of communication.

Since the ATS-6 satellite was no longer available for AESP use, it was decided to market the tapes of the AESP courses to interested institutions and to encourage the community sites to use their copies of the tapes with video playback equipment to provide service on a limited basis. The idea of bicycling the tapes to individual schools became first a way of continuing the AESP service and then remained as a procedure or policy of using delay techniques to meet the special needs of small groups.

The original task of AESP was to test the feasibility of using a satellite to deliver high quality education courses, based on local needs, to remote and isolated communities, with the institutions of higher education of the area offering academic graduate credit to the participants. Since feasibility had been proven, AESP decided after discussions with community representatives, school systems, colleges, and universities that what was now needed was to demonstrate how an effective network could be developed to provide the necessary programming.

Relying on its past experiences, AESP continued to seek the opinions of its personnel in the central office and in the field and to channel local input into the almost monthly meetings of its groups.

Discussion led to the decision to seek funding for a transition period in which a demonstration project could, over a period of years, become increasingly able to operate by generating its own income and depend less and less on federal funding. In order to accomplish this, it was decided to propose that AESP:

1. Expand the number of sites;
2. Expand and vary its programming;
3. Expand the type of agencies sponsoring community sites to include local community agencies serving in the areas of health, social services, educational institutions, business, industry, and government;
4. Develop a viable organization-management design;
5. Develop written policies and procedures.

This action marked a major point in the development of ACSN; the organization has to this day evolved based on these original objectives.

In 1975 - 76, AESP entered an evaluation phase in preparation for future expanded delivery of education services. This was begun with a region-wide needs assessment that identified program priorities in the areas of education, health and medical services, government, business and industry, and human resources. By broadening its services in areas other than education, AESP could better serve the needs of Appalachian people in a cost-effective way by providing programs and services to a larger audience than the teaching force.

Based on the needs assessment results, AESP proposed to expand its network to include sites in all 13 of the Appalachian states and develop a four-year operational plan that would provide a wide range of public service, formal courses, and continuing education activities to the citizens of Appalachia. The program would test the following questions:

1. Can a regional education information program provide better quality instruction at an acceptable cost to the individual?
2. Can a reasonable and cost-effective public service satellite capability be developed to support such a system?
3. Can a market be generated that will support the administrative and programmatic costs for continued program development (and delivery)?
4. Will higher education institutions, state agencies, and accrediting agencies cooperate and develop working agreements with AESP for the sanctioning of these courses and programs?

An interagency agreement for financial assistance was reached by ARC and NIE. This key assistance was crucial to the beginning efforts of the demonstration.

With this beginning, AESP also accepted greater responsibility for providing substantial amounts of its total budget. It realized that a strong communication network providing effective services to its users could not be built by an organization that depended on its financing mainly from public funds. In other words, AESP began developing into a network that could operate if and when public funds were withdrawn. AESP soon thereafter proposed a transition period in which there would be a gradual diminishing of federal funds until the network became a self-sufficient organization. This objective to be self-sustaining has continued to be a major impetus to the development of ACSN.

It is useful to provide a summary of what was happening, at that time in the field of communications and the changes that were occurring within AESP itself.

1. The proven success of communication satellites

The success of the ATS-6 and other similar satellites began to revolutionize the long distance transmission of the television signal. Distribution up to this time was accomplished mainly by coaxial cable, microwave, and auxiliary telephone lines which were subject to terrestial and man-made interference, the weather, the limits of line of sight contact for broadcasts, and the availability of public service facilities in an area. Such problems changed as communication satellites with powerful television and radio transmitters, orbiting in space more than 22,000 miles above the surface of the earth, had unobstructed direct line of sight contact with ground installations. It was now possible to carry television signals to every dip and hollow of the earth's surface and opened the way to provide channels even beyond the number contained on the dial of a television set.

The ground stations were not the high cost, million dollar installations formerly required for satellite telecommunications. Because of higher power satellite signals, receive equipment consisted of relatively inexpensive dish antennas and simple receiving equipment. No matter how rugged the terrain, or the size or location of natural or man-made obstructions, the receiving antenna could easily be pointed skyward toward the position of the satellite, which was orbiting at the same speed as the earth in order to maintain a relatively fixed position. At its height, the satellite could now provide service to a large geographical area and, although the sites might be separated by mountains and rivers, the satellite provided a quality signal.

A series of such "geostationary" satellites were established in the 1970's to make global coverage feasible and intercontinental transmission for special events were successfully operated. Of relevance to ACSN was that sites in large areas such as the entire United States could be served simultaneously with one satellite.

With improvements in design and further adaptation of equipment to the particular wave lengths used for transmission, costs were reduced and satellite telecommunications became a dependable and less costly method of providing transmission services. SATCOM I, COMSAT, WESTAR, and numerous other commercial satellites with total continental coverage became popular and successful with an ever growing number of agencies, institutions, and businesses vieing for the use of these services.

2. The introduction and growth of cable television

At about the same time that the early communications satellites were being developed and improved, a new technology was introduced in communities that were experiencing difficulties with radio and television reception because of location in fringe areas or distortion and inconsistent reception caused by the terrain or man-made interference. Because of the method of redistributing the television programs from a master antenna by cable to homes, the technology was called cable television.

Special equipment was used to receive the best possible signal, amplify it, and deliver it to the homes by means of a newly designed coaxial cable.

This activity led to the establishment of local cable TV companies, where a resident no longer needed his own antenna but paid a monthly subscriber fee for his cable connection. The cable system supplied the home with the programming from the stations that could be received in the area plus closed-circuit channels of their own. Since cable systems were developed where special needs existed, their growth at first was slow.

3. The tie-in of the satellite and the cable system.

The success of the early satellites did not directly affect home reception; occasionally, spectacular programs of global importance covered international events. Pictures of space travel events showed the effectiveness of transmitting TV and radio signals over vast distances never before experienced. However, to receive the satellite transmission required specialized equipment which, though relatively inexpensive when contrasted with former costs, was well beyond the means of the average family. Such installations were economically attractive for the cable companies who needed one such installation for the entire system. With the realization of the advantages the satellite gave to a cable system came the first surge in the remarkable and rapid growth of cable systems throughout the United States in the mid-1970's. In fact, the satellite and the cable system seemed to have been made for each other and this combination gave ascendency to satellite transmission and sparked the phenomenal growth of the cable system in the United States. Thus, in 1978 AESP anticipated the success of the commercial telecommunication satellites and the effectiveness of the cable system to distribute AESP programming directly into the homes of the viewers.

Turning from consideration of improvements, problems, and trends in communication technology of which the above are examples, it is important to point out that discussions and decisions in the AESP staff were also preparing the way for the changes that were to come in determining the future scope, functioning, organization, and operation of AESP.

1. The "Needs Study" changes AESP programming

The results of the detailed "needs study" that began in 1975 with the involvement of representatives from throughout Appalachia caused a basic change in AESP programming which heretofore had been confined to formal graduate credit courses in the field of education for teachers. The study revealed a serious desire for assistance in the fields of health and medicine, business and industry, government and community services. This brought about a widening of courses, workshops, programs for academic credit, personal development, and public information.

2. AESP becomes a "distributor" of courses and programs

The need for diversified programs added impetus to another change as AESP began seeking quality programs that had been developed by others. Such courses or programs were always adapted to meet AESP needs and activities. AESP had begun an extensive review of existing materials to identify high quality programming to meet program needs and to define gaps where new program development was necessary. As a result, AESP evolved into a distributor of programs as well as a producer. This trend was to tip heavily in the distributor direction in the ensuing years.

It is thus evident that the trend of events outside and the new opportunities within required attention and action as AESP moved from a concise limited educational experiment in feasibility to a demonstration that would lead to the establishment of a viable communication network. AESP met the challenges, seized the opportunities, and began making adjustments within its organization. It developed management practices to meet its expanding role and opportunities, determined personnel changes, provided leadership for a large number of sites, attracted more than double the number of affiliated colleges and universities, and considered alternate delivery systems for back up or changed conditions.

In late 1976, the ATS-6 was returned to an orbit similar to its original position over the United States and AESP immediately requested a time allotment from the satellite's schedule for continuing its Appalachian programming. Negotiations between ARC and NIE resulted in the development of a long-range four-year plan for a demonstration. NIE allocated 60 earth stations to ARC from other concluded Health Education Technology (HET) projects for installation in the AESP program, and helped secure a satellite transmission uplink from NASA which was reassembled in Lexington, Kentucky. The estimated value of this equipment was approximately 1.3 million dollars. AESP now had the equipment to increase the number of its sites and to access ATS-6 directly without going through NASA's main uplink and satellite control installations at Rosman, North Carolina, or Denver, Colorado, where terrestial line costs to bring programming to these locations was deemed too expensive and not cost effective.

Operations using ATS-6 delivery of AESP courses and seminars began again on January 25, 1977. Between January '77 and September '77, AESP supplied two courses to 250 teachers and eight workshops to over 1200 participants. AESP was still emphasizing in-service teacher education, but it was on its way again.

E. AESP - A Communications Network Serving Appalachia, 1977 - 1979

The AESP that began its programming to Appalachia in January 1977 closely resembled its predecessor that had conducted the experimental project in 1974 - 75. The work "Program" replaced the work "Project" in the official name and the organization became the Appalachian Education Satellite Program. The logo, however, remained unchanged — AESP.

AESP now had backing and organization form that guaranteed its existence for at least a four-year period — enough time to establish an operational community service. By December 9, 1977, the interagency agreements for funding were settled between ARC and NIE, and AESP had agreed to gradually assume the responsibility for funding its budget. The general budget arrangements were spelled out by ARC in a letter of intent to NIE, and were accepted in principle, subject to periodic review and revision. ARC agreed to support and house the AESP central staff and committed itself to seek funds from organizations, agencies, and users to provide the AESP share of future budgets.

AESP also had its first experience with the responsibility of raising some of its own funding. The following is an indication of the types of income that began accruing to ACSN in its move toward self-sufficiency.

Income 1978 from local program sources:

Participants		
Tuition Fees	$ 77,401	
Workshop Fees	7,314	$ 84,715
Sponsors - Programming		
National Science Foundation	$ 82,000	
Bureau of Education for Hand.	195,000	
Office of Consumer Education	131,000	
Maryland RESA	11,000	
Corp. for Public Broadcasting	24,000	
Small Business Administration	25,000	$468,000
		$552,715

When AESP resumed its programming to Appalachia, it was permitted to use NASA's uplink at Rosman, North Carolina, until the AESP "S" Band uplink which was being installed at Lexington, Kentucky, was completed. It was ready in about six months but was soon replaced with an "L" Band uplink.

Receive sites were gradually established at 45 locations throughout Appalachia. They were equipped with 3.03 meter antennas and 2.5 GH_Z receivers. (See Exhibit 3) Several sites, however, had made their dish antenna available to a local cable system or had moved the dish to the cable system site and were depending on the cable delivery of AESP programming to the site. By the spring of 1979 there were seven cable companies receiving the programming from the ATS-6 and a PBS station in Wheeling, West Virginia, able to provide open air rebroadcasts to that community.

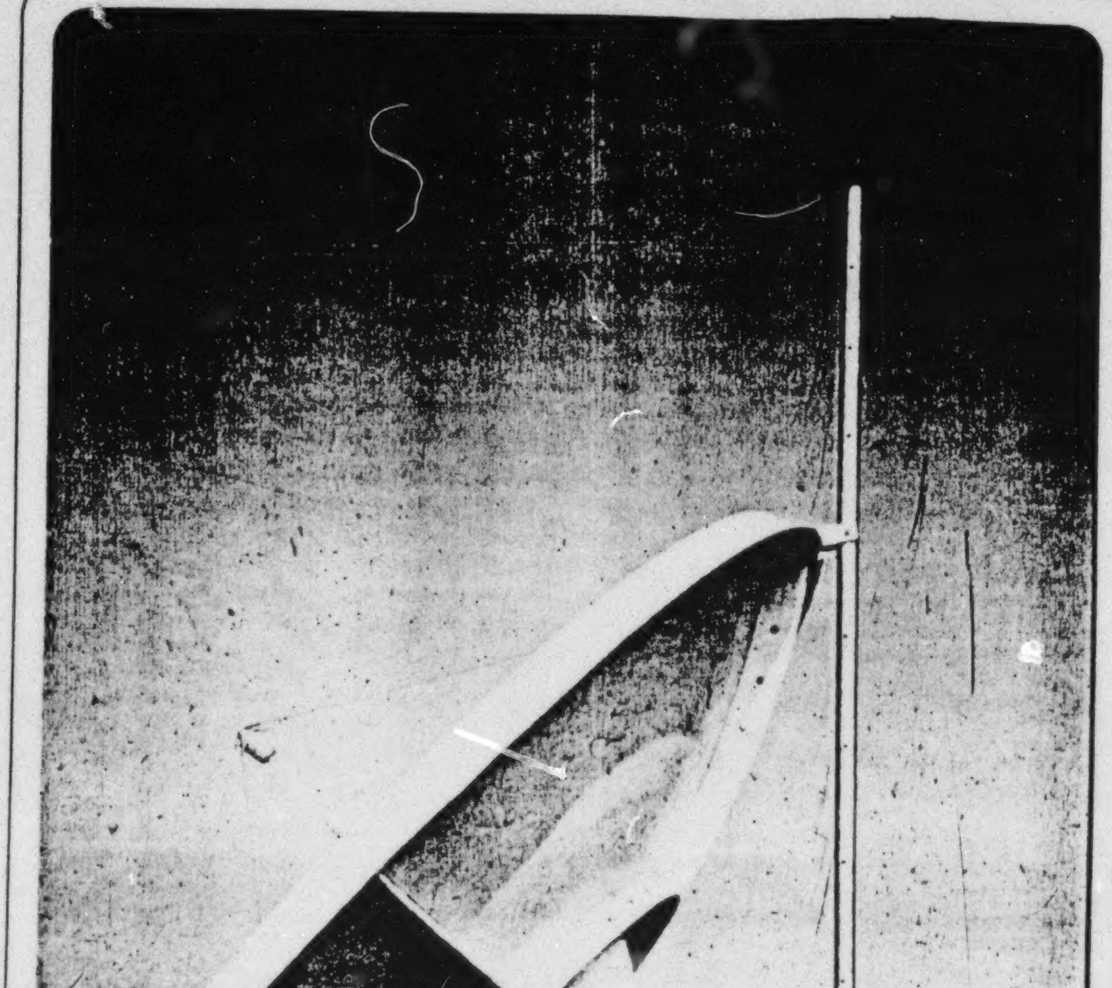
From September '77 to October '78 AESP continued to provide public service programming to residents of Appalachia. Over 2800 individuals participated in the courses directly as AESP expanded its courseware coverage to include increased instruction for teachers as well as emergency medical care, fire prevention techniques, and small business management courses.

AESP had scarcely started implementing some of its planned changes when an event occurred which was to have far reaching effects on its objectives, organizational structure, programming, and marketing operations.

In October '78 NASA announced that ATS-6 service was to be discontinued because of growing technical difficulties. The final use date was announced for September 30, 1979. This date was changed several times, but it was finally set for June 30, 1979.

In 1978, therefore, AESP began reviewing in earnest a number of alternatives concerning its future operation. The NASA announcement of the June 30 date only moved forward the need for a decision. The alternatives at

EXHIBIT 3



this point were: (1) discontinuing AESP operations; (2) develop a stop gap system using some combination of video tape, film, radio; (3) use of public TV; or (4) secure program time on another satellite? Actually,the thought of discontinuing operations was never really considered. AESP was a growing program and had a mission to perform, and it was felt that something positive should be done to promote the program and not delay it with stop gap measures.

Several alternatives were considered. Should AESP secure time on another public satellite? But no public satellite capable of carrying the AESP program was available and NASA had announced no plans for a replacement for ATS-6. Should time be sought on the Canadian experimental satellite CTS sponsored by NASA and Canada? CTS was having technical difficulties and its use would require many expensive equipment adjustments at AESP installations. Should time be obtained on a commercial USA satellite?

The AESP staff decided to seek time on a commercial satellite. AESP decided to take the step at that time and to then face the challenge of reorganizing to meet greatly increased financial obligations and to make necessary adjustments in the 1979 summer and fall programming.

Several commercial satellites were available; the question was to select an available transponder most propitious for AESP use.

To carry out this action, AESP funds had to be reallocated by transferring some of the funds from summer operations and other budget items to provide additional money for the changes in equipment needed to utilize the satellite and the transponder.

ARC allocated $186,000 of ARC monies to purchase transponder time for one year on RCA SATCOM I to insure there would be no break in programming. The SATCOM I was chosen because of its potential access into over 18 million homes, mostly in non-metropolitan areas across the nation. AESP secured from NIE and NASA an additional $450,000 to build an AESP uplink and to provide needed additional equipment for local site modifications.

The AESP staff investigated the feasibility of marketing its programming to cable companies to provide them with sustaining programs and to secure home viewers for the courses and workshops. A brochure was prepared and circulated to cable companies. Negotiations were begun with interested companies and many agreed to use the service. Particular attention was given to cable companies located in the immediate vicinity of the current AESP sites.

Some of the receive sites had no access to cable TV systems. AESP secured funds from NASA and ARC to install the necessary antenna and other equipment to continue their operation.

In order to meet the increased cost of using a commercial satellite, the AESP staff developed a business plan and market strategy which recommended a consolidation of some aspects of the AESP network and the creation of a new organization, the Appalachian Community Service Network (ACSN), to serve a larger area and clientele.

In October 1978, it was necessary to ask that the amount $1,600,000 requested from NIE in the agreement be increased to $1,875,000 for Fiscal 1979 by utilizing left-over monies from FY 78. This request was approved subject to an analysis of actual expenditures, because it was anticipated that two critical events would soon occur — the delivery [illegible] the programming to

Appalachian cable television networks and public broadcasting station affiliates, and the need to convert the entire system transmitters and terminals to the frequencies required in the changeover from a NASA experimental satellite to a commercial satellite. The future of AESP would rest on the success of these two events.

Written commitments were made by ARC and NIE to provide diminishing financial support and services until 1982 when the network was expected to be a self-supporting public telecommunications service. Plans were immediately approved by ARC for (1) the reorganization of AESP into a new agency ACSN, which was to be incorporated, (2) the reconstruction of the management organization, (3) the appointment of a board of directors, (4) the establishment of a corporate office, and (5) the development of programming to effectively utilize the amount of time available on SATCOM I.

The last transmission using ATS-6 was on June 27, 1979, and was received at 44 AESP sites. This transmission brought to an end the AESP's use of public satellites. In fact, it marked the end of AESP and the beginning of ACSN. No programming was transmitted between that day, June 27, 1979, and October 10, 1979, when programming for testing purposes was begun prior to resuming regular broadcasting using SATCOM I. These 105 days were nevertheless busy days. During this time AESP faced up to the problems which brought more than a new name — the introduction of new management and distribution systems and a dramatic shift in organization, objectives, procedures, programming, and direction.

Part II

The ACSN Story

Part II - The ACSN Story

A. AESP Becomes ACSN

At the September 10, 1979 Commission meeting the ARC approved the renaming and reshaping of AESP into the Appalachian Community Service Network (ACSN) - a non-profit corporation to be established under the corporate laws of the District of Columbia. In addition, the Commission decided that:

1. The corporation would be governed by a Board of Directors to be appointed;
2. A committee consisting of a representative from each of three member states and the ARC Federal Chairman be empowered to immediately develop bylaws, suggest procedures for appointing corporate Board members and outline the design of a corporate structure for the new agency;
3. The shortfall of $2.183 million anticipated during FY 80 be funded by the Commission.

ARC Resolution No. 496 formally adopted at the October 24, 1979 meeting of the Comission, authorized the incorporation without further delay of a non-profit organization — ACSN — and directed that appropriate bylaws and procedures for appointing board members be adopted as quickly as possible.

The initial Board of Directors was appointed by the Commission to develop the corporate structure and the bylaws. This group developed and signed the

Articles of Incorporation on February 15, 1980 and then submitted it to the office of Recorder of Deeds, District of Columbia. On April 8, 1980, the Office of Recorder of Deeds, Washington, D.C. certified that a Certificate of Incorporation had been issued to the Appalachian Community Service Network.

The purposes for which the corporation was organized were listed in the Articles of Incorporation as:

1. To serve and benefit the people of the Appalachian Region, as defined in the Appalachian Regional Development Act, by providing educational, cultural and public interest television programs through a television network utilizing a satellite distribution system and other distributive technologies. While it shall be the primary purpose of the corporation to serve the Appalachian Region, the corporation may also provide such services to other portions of the Appalachian States and the United States. "In this manner, the corporation will be operated exclusively for charitable and educational purposes as those terms are defined in section 501(c)3 of the Internal Revenue Code of 1954, as amended."

2. To provide for and conduct, directly or indirectly, the creation, design, development, production, origination, distribution and broadcasting of educational, cultural and public service programs on the basis of priorities and needs identified in the Appalachian Regional Development Act, as addressed by the Appalachian Regional Commission, ascertained through advisory groups and mechanisms throughout the Appalachian Region, and set forth in the policies of the Board of Directors of the corporation. The

programs will be made available to all citizens, with an emphasis placed on the needs of underserved populations in rural and nonmetropolitan areas, in a manner as nonduplicative as possible of other public broadcasting systems or the commercial television industry.

3. To exercise all the powers conferred upon corporations formed under the District of Columbia Nonprofit Corporation Act in order to accomplish the Corporation's educational, cultural, civic, charitable and other similar purposes, including but not limited to the power to accept donations of money or property, whether real or personal, or any interest therein, wherever situated.

The duties, responsiblities, and privileges of the members, the Board of Directors, and the officers of the corporation, as well as the general procedures to govern operation are outlined in a 13-page document entitled, "The Bylaws of the Appalachian Community Service Network," which is included in the Appendix.

As a result of the continuing interest of local Appalachian institutions and agencies, the guidance and financial support of ARC and NIE, and the decisions and plans of the AESP staff, a new entity — the Appalachian Community Service Network — ACSN — had come into existence.

ACSN was AESP on a broader scale — serving an expanded program to a larger audience that potentially included the entire USA and even beyond. It provided for the continued use of community receive sites but added the exciting opportunity of making the ACSN program availalble to home viewers. Its program was much broader than formal education though the term "educational" can properly be applied to all of its offerings. It added programming whose orientation is informational while still providing courses and workshops for which participants can receive academic credit.

The switch from using a Federal research satellite to use of an RCA commercial satellite in 1979 did not in itself cause radical changes in ACSN operations. Basically, the same type of equipment and procedures were needed and used even though changes in wave length, signal strength, or other technical adjustments were made. What was to make a profound difference in the next two years, however, was that ACSN gained access to cable TV systems not only in Appalachia but throughout the United States, and that the growth of the TV cable systems was spectacular, swift, and nationwide. The impact of these factors was vividly shown to ACSN personnel when it was realized that during the time between deciding to move to SATCOM I and the actual start of operations in October 1979, ACSN had already sold its programming to more than 50 TV cable systems that reached more than 200,000 subscribers.

The new operational program, therefore, called for altering, adjusting, or modifying equipment with which ACSN personnel were already familiar. ACSN no longer had the free service of the ATS-6; it now would lease time on Transponder 16 of RCA SATCOM I as a regular tariffed service (approximately $100 per hour). The terms of the agreement called for 1800 hours of service beginning on September 1, 1979.

As a part of the contract negotiations for the use of SATCOM I, RCA waived its requirement of using an official RCA uplink to access the satellite. An uplink facility was acquired by ACSN through a memorandum of understanding with NASA and the National Telecommunications and Information Administration (NTIA). The uplink was constructed at Lexington, Kentucky, and operated by the ACSN engineering staff and was licensed by the FCC. Back-up facilities at Vernon Valley, New Jersey, and Atlanta, Georgia, were made available by RCA as part of the lease agreement.

As had been the case since since 1977, ACSN could originate live or taped programs, use its uplink to access a satellite, and use the satellite to broadcast the programming to viewers. Up until now all AESP ground installations were equipped with special dish antennas and receivers to receive the ATS-6 satellite transmissions of 2.5 MH_z. These installations were owned and operated by ACSN and the network was a closed group of these installations. They were the sole users and comprised the entire ACSN netowrk at the time.

Naturally, ACSN wished to make use of its old network sponsored by community education and service agencies for distributing its new programming. It would, of course, now be necessary to alter the site receiving equipment and convert it to receive in the 4.6 GH_z frequency range since the SATCOM I transponders broadcast on this wave length.

It will be remembered that seven cable companies were already associated with the AESP programming while ATS-6 was still being used. These early contacts with cable TV systems were restudied and it was realized that many of the cable TV systems were already receiving SATCOM I transmissions and that with relatively minor adjustments and little additional equipment could participate easily in ACSN programming.

Sites located in areas already served by cable TV systems were asked to discuss the possibilities and costs of receiving the programming via cable instead of the equipment at the sites, especially if ACSN supplied the cable TV system with needed equipment for the operation.

When funds were made available to ACSN for the design, construction, and installation of 25 such systems, a contract for their manufacture was awarded to Scientific Atlanta Corporation. It was agreed that they should be installed at two types of locations, at community sites and at cable TV systems willing to sign contracts to receive ACSN programming. This seemed to be a practical way for expansion. Of the first 25 systems that were built, 10 were arbitrarily assigned to sites sponsored by affiliated Appalachian agencies and 15 to cable TV systems. The actual number installed differed only slightly from the allotted proportion.

The community receive sites were 'receive-only-terminals' (ROTs). They were located in community structures and accessible to local residents. The equipment included the dish antenna and a receiver. Since the transmission was picked up directly from the satellite on equipment located at the site, they resembled the original AESP local sites. Programs were recorded for tape delay use in accordance with ACSN policy. In general, the community sites were not able to provide ACSN programming to home viewers. Several sites, however, arranged for the transmission of the tapes through PBS facilities to local areas.

At that time, cable sites received the ACSN transmission from a local cable system which had agreed to participate in the ACSN network. The cable company received the transmission on its own antenna using either its own receiving equipment or special equipment provided by ACSN. The cable company then relayed the transmission to the local ACSN receive site. Such sites were not equipped with antennas or satellite receivers, but were dependent on the cable company for receipt of the programming.

The cable company affiliated with the ACSN network, in keeping with its agreement with ACSN, also transmitted the programming over cable, making it available to home viewers. Whenever the home viewers wished to utilize courses or workshops for academic credit, local ACSN site personnel were responsible for the recruitment, enrollment, distribution of materials, and answering questions about the course, and academic credit.

The cable sites could also record the programs and make them available to other cable companies or sites for tape delay use in accordance with their contract agreement with ACSN.

So cable TV systems themselves became an increasingly important part of the ACSN distribution system, greatly broadening the clientele and expanding the distribution of programming. In 1980, ACSN still operated facilities at community sites where classrooms were provided for group viewing and directed activities under the leadership of course monitors. But this same programming could be viewed in the privacy of a cable TV system subscriber's home. Bringing such courses and workshops directly into homes greatly reduced the need for group viewing. The number and size of group viewing classes became fewer and fewer as 1981 approached, especially in areas were colleges and universities developed requirements and procedures for granting academic credit for successful completion in the home of such an approved course or workshop.

The number of community sites never again reached the high mark set during ATS-6 days. For example, when ACSN began using SATCOM I for programming in October 1979, equipment alterations and adjustments had been completed for six of approximately 44 community sites and 11 cable TV systems. Gradually, other sites were added but many of the older sites were no longer operated. Finally, in 1981 sites as they had formerly been constituted were eliminated. A number of institutions for higher education have maintained sites, using them for presenting ACSN courses and workshops that they offered as part of their total program. These sites are operated by the institutions in which they are located although the equipment is owned by ACSN. The operating costs are funded by each institution which does, however, pay ACSN a share of the fees and tuition charges for the courses and workshops that are used.

The new dimensions, therefore, that marked the emergence of ACSN were:

1. The use of a commercial RCA satellite - SATCOM I;
2. A commitment from RCA to continue ACSN on their newly launched satellites assures year to year continuityfor programming;
3. The use of local cable companies to deliver ACSN programming to local sites;
4. The inclusion of home viewers as an important element of participation wherever cable companies are affiliated with the program;
5. The establishment of an ACSN uplink facility to the satellite;
6. The broadening of outreach operations to provide specific interests and community services to home viewers outside of Appalachia, with first priority, however, given to expansion in Appalachia;
7. The marketing of many ACSN programs for use by local cable companies as sustaining program;

8. The brokering of ACSN services to provide national access to satellite distribution for local, state, and federal public service agencies and for private organizations and businesses.

ACSN now faced the formidable task of meeting the problems and opportunities of:

- Adjusting to the overall direction of a Board of Directors
- Working with legal counsel to implement incorporation
- Reorganizing its management structure
- Developing new understandings and relationships with its field staffs
- Revising its network operations
- Securing effective programming for its increasing time needs
- Creating an entirely new business plan that emphasized the marketing function

B. A New Start

ACSN began operating in October, 1979, and since that time has continued its services without interruption as it looks forward to a future of continuing success. Its transition from ARC sponsorship to an independent non-profit corporation was accomplished smoothly. ACSN moved to a new corporate office, 1200 New Hampshire Avenue, Suite 240, Washington, D.C. in September 1981.

Its Board of Directors has met regularly in quarterly meetings, bylaws have been developed and approved, and the number of hours transmitted on SATCOM I has been increased twice and is presently 64 hours per week. Strict budget control has been exercised; necessary adjustments have kept expenditures within income levels and have produced quantifiable results in meeting program needs and field operations.

ACSN recognized that major changes were occurring which have eliminated the local sites; it thus brought courses and informational programs into the homes and made ACSN programming available beyond Appalachia. These changes have required a continuous review of objectives, management structure, personnel needs, marketing, programming, and network operations. Many of the procedures that were basic to the success of the earlier programs could no longer be used in the same manner; new procedures were needed to meet the persisting needs. For example, basing programming on local needs is still essential but the local assistance of sponsoring community agencies and their advisory councils is no longer available because local sites have been eliminated. A new way to secure information about local needs must be developed and used. Likewise, new procedures are needed to secure local involvement and input, community assistance in program selection and development, college participation in ACSN courses and programs, the development of new material for home viewer use, and finally, revenue opportunities to make ACSN programming financially profitable for cable TV system.

ACSN has, therefore, not only been operating a viable program but has also been concerned with the practical problems and opportunities that are growing out of its experiences and reshaping its organizational design and operations.

ACSN was meeting its financial obligations and experiencing a significant growth in clientele in the form of cable operators and subscribers. Constant adjustments have been made in organizational design, management practices, network operations, and programming as aims and objectives grew to keep pace with the expanding opportunities afforded by the wide delivery service made possible by SATCOM I.

The changes that were occurring were reflected in the correspondence, the agreements, the directives, and the documents that are a part of ACSN's past. It is difficult to place in chronological order the memos, studies, reports, proposals, and interagency agreements concerned with the early history of the ACSN demonstration since many were submitted first on a tentative basis and then frequently revised or mutually adjusted after discussion and further study. They include the following types of materials and, along with the correspondence, news releases, and financial reports, constitute the basic documentation of the ACSN operation.

1. A Comprehensive Proposal that AESP expand its experimental program and establish an operational demonstration network eventually responsible for funding its own budget and of operating as an independent non-profit agency was prepared.

In response to instructions from NIE, AESP submitted this large, complete "proposal" to that agency on December 6, 1976 as an operational plan for such a demonstration project. An accompanying letter explained that AESP, over the last year and a half, had reviewed the results of its ATS-6 satellite experiment with local participants, government agencies, and universities, and that the proposal was based on the positive feedback from these sources.

This proposal reviewed the status of AESP programming, outlined the objectives and goals, the management organization, the proposed expansion of sites and programming, budget needs. It also gave details about the research and evaluation plans. It served as a model for all the work plans that were submitted by AESP/ACSN annually from 1977 through 1981. These annual proposals are invaluable sources of information about the forces, changes in objectives, organizational design, programming, and in operational procedures that constitute ACSN's present status.

2. The written interagency agreements between ARC and NIE concerning the funding and direction of the demonstration, as were not regarded rigid agreements but were revised and adjusted from year to year as conditions changed or new courses of action became desirable.

Of major importance in this group is the agreement dated

December 9, 1977 in which the general budget arrangement for a demonstration project was spelled out by ARC in a letter of intent to NIE and was accepted by NIE subject to periodic review. ARC agreed to support and house the AESP central staff and committed itself to seek funds from organizations, agencies, and users to provide the AESP share of estimated total cost to be shared between the agencies through FY 1981. A $10 million budget was suggested as a tentative amount to be shared by the NIE and AESP for a five-year period 1978 - 82.

The interagency agreements were short documents that dealt primarily with funding. They were revised periodically and budgets were adjusted in keeping with actual expenditures or agreements for additional operations. These agreements provided NIE, ARC, and AESP with a quick and ready look at the annual financial and operational status of the demonstration.

3. The interagency agreements required the annual preparation of a progress reports from ACSN. They were entitled, for example: ACSN Proposal to the NIE for Funding 1978 -79. Four such documents were prepared during the period 1978 - 1982.

These reports summarized the status of the demonstration, the changes that were occurring, and the plans and budget needs envisioned for the coming year.

4. A series of 27 technical reports prepared and published by the evaluation component of the Resource Coordinating Center, University of Kentucky, Lexington, Kentucky, that cover the period 1973 - 1979 are primarily

concerned with evaluation and are analyzed in detail in the "Evaluation and Research" section of this report. They are mentioned here because of their influence on management and the support they provided for budgetary decisions. One of these, Report No. 10, about a "Cost Estimation Model for Alternative Course Formats and Delivery Modes," was useful in developing ideas for back-up delivery of the programming.

5. When the shift from the ATS-6 satellite to SATCOM I was made, and as ACSN moved toward becoming an independent organization, several special contracts were signed between ACSN and ARC.

   These documents assured ACSN of a continuity of operations and, together with progress reports submitted quarterly to ARC, provide insight into the development of the ACSN system.

C. The Growth of ACSN

Since ACSN became an independent non-profit corporation in 1980 it has become a full-fledged member of the cable industry and achieved an impressive record of accomplishments.

- The industry recognizes ACSN as the premier educational program service delivered via satellite to cable systems.
- ACSN was rated as the fastest growing national cable service in a survey conducted by Cable Vision magazine and reported in the January 18, 1982 issue. ACSN increased its number of cable system affiliates by 270% and its number of household subscribers by 176% during 1981.
- ACSN is the only cable programming supplier with a full time commitment to the delivery of educational and instructional programs for adult viewers and learners. This is a continuation of the purpose for which its predecessor AESP was created.

The growth in the number of cable TV systems using ACSN programming has been most encouraging. In October 1980, ACSN had 70 cable affiliates; in April 1982, there were 230. In October 1980, ACSN re[illegible] 350,000 subscriber households; in April 1982, there were more than 1,500,000. Cable TV systems in 42 states were using the ACSN service. By October 1980, 30 institutions of higher learning had given academic credits for ACSN telecourses; by April 1982, this total had risen to 70 such institutions.

ACSN's corporate objectives continue to focus on public needs. In spite of the pressures of the commercial marketplace where sports, movies and news dominate subscriber preferences, ACSN continues to grow based on the unique quality programming and the desire of cable system operators to offer the subscriber an alternative service.

ACSN remains a national satellite-to-cable programming service with primary commitment to adult education with programming that is primarily educational, instructional, and informational. It delivers, on a self-sufficient basis, quality programming to a significant portion of cable TV subscribers nationwide. New public service groups are enabled to utilize telecommunications as a cost-effective means of meeting their program objectives.

The growth in the cable systems using the ACSN service in 1981 and 1982 is shown in the following table:

	States	Households
May 15, 1981	33	727,626
July 1, 1981	37	897,004
September 29, 1981	39	1,130,495
November 30, 1981	41	1,474,242
January 31, 1982	41	1,385,628
March 31, 1982	41	1,387,186
May 31, 1982	42	1,511,402

This year, 1982, ACSN is providing 3,300 hours (64 hours per week) of programming to more than 1,500,000 homes in 42 states to an estimated 4,500,000 individuals.

D. Evaluation and Research

Evaluation and Research has always been an integral part of ACSN/AESP programs and operations. The evaluation design that was developed in 1973-76 for the experimental program did more than provide a basis for validating the courses and show the feasibility of using the technology, for it brought respectability and legitimacy to the courses and a feeling of confidence to AESP personnel and the participants in the use of modern communication technology for education. The evaluation design also established procedures and practices for (1) basing programming on community needs and the interests of the Appalachian citizenry, and (2) for seeking input from them concerning what they thought of the courses, suggested revisions, topics for future programming, and how they were using what they had learned.

AESP personnel from the time of the experimental program in 1973 recognized that (1) accurate information about the quality of the project instructional material, (2) the effectiveness of the technology, and (3) the achievements and attitudes of the participants would be required by the funding agencies, potential users, the colleges granting academic credit, the general public, and project personnel responsible for making decisions about refining and revising course materials, planning other courses, or managing network operations.

Such important feedback could not be left to chance or be collected as an afterthought, but had to be carefully developed as an integral part of the experiment itself. AESP, therefore, appointed a staff of trained evaluators headed by a director with a doctorate in educational research, an assistant to the director, and two or more evaluation coordinators. An evaluation office was established as a component of the AESP Resource Coordinating Center (RCC) affiliated with the University of Kentucky, Lexington.

The evaluation component designed and carried out a comprehensive evaluation program on the 1974-75 experiment using recognized research techniques for collecting and analyzing information. Reports about the results, attitudes, and important findings were promptly prepared and distributed.

During the year 1975 - 76 when ATS-6 was in orbit over the Indian Ocean, the ARC and NIE agreed to continue funding AESP on an diminishing scale, not as an education experiment but as a demonstration network to provide educational, social, and civic services to Appalachian communities. AESP's new aim was to eventually become a continuing self-supporting organization.

In beginning its new lease on life, AESP used the organization, procedures, policies, and network established during the experimental years, but immediately began adapting to meet the changes required to develop a demonstration network whose goal was to provide such a desirable program that it would be supported as a self-sustaining service.

Expansion became the key word as adaptions and changes were made to provide for the addition of many new sites, greater variety in programming, home viewing, program acquisition, and liaison with cable TV companies. The Resource Coordinating Center and its tie-in with the University of Kentucky was retained as an important link in the new AESP organization, and its evaluation component gave significant assistance in implementing the changing emphasis that the demonstration brought.

The personnel of the evaluation component had acquired a good background knowledge of Appalachia, its people and their needs. They also had the experience of designing and conducting a comprehensive evaluation of the use of satellite technology to improve education in Appalachian communities. At the same time they recognized that what was now needed was not "more of the same."

A demonstration that is evolving to an ongoing permanent network requires a different evaluation emphasis than an educational feasibility experiment. There was now a lesser demand for pragmatic empirical research to prove feasibility and a greater need to emphasize user assessment and satisfaction, to relate evaluation to marketing and cost effectiveness, to apply the results to program selection, network operations, and user needs, and finally, to keep abreast of changes and trends in satellite technology, cable TV, and communication advances. Evaluation, therefore, was not as much concerned with proving the effectiveness of a course as providing data useful for the orderly growth of the service, guidance in program selection and acquisition, the establishment of a sound financial structure, the development of effective marketing procedures, and a continuous updating of community and personal needs.

The questions to guide the planning of the evaluation design for the demonstration reflected both this changed emphasis and the need of ACSN to increase its number of sites, add home viewers, expand the programming, and become financially self-sufficient. Objectives were listed and restated as questions to provide a framework in which to seek answers. The questions were:

1. Can a regional education information program provide better quality instruction at an acceptable cost to the individuals?

2. Can a reasonable and cost-effective public service satellite capability be developed to support such a system?
3. Can a market be generated that will support the administrative and programmatic costs for continued program development (and delivery)?
4. Will higher education institutions, state agencies, and accrediting agencies cooperate and develop working agreements with AESP for the sanctioning of these courses and programs?
5. What continuing education programs will best meet the needs of Appalachia in the fields of education, health, business and industry, human resources, and government?
6. Can previously developed software be cost effective and successfully or exported to other regions of the cou[illegible]
7. To what degree can the courseware and delivery system be generalized or exported to other regions of the country?
8. What alternative use of communication satellites are possible and practical in meeting the continuing educational needs of leaders and citizens?
9. What type of regional and local organizational structure will result in linkage to a wide range of agencies to maximize the utilization of existing resources and expertise in Appalachia?
10. What regional fiscal structure will provide the most effective transition from the support of the NIE to state, local, and private sector forms of support?

"It is the aim of AESP, by the end of the Demonstration Period, to have in place a prototype delivery system which has been judged, as a result of research and evaluation activities, to have promise for meeting the continuing educational needs of leaders and citizens throughout a large geographical region where conventional communications are difficult. By the end of the project, the effectiveness of an expanded telecommunication network to help meet the needs at low cost per person will have been assessed. This will be certified as resulting from appropriate research and statistical procedure....."

Appalachian Education Satellite
Program Proposal submitted to
National Institute of Education
December 1976

It was soon recognized that the RCC Evaluation Component was providing an important service to the AESP demonstration. It continued this service through 1978 and 1979. After AESP became ACSN a management reorganization occurred and the RCC was reconstituted as the Program Operation Center (POC) with functions adjusted to meet the changing needs of the network. The Evaluation Staff continued as a component of the new POC. In 1980 ACSN discontinued its contract with the University of Kentucky and set up the POC as an integral part of the new ACSN corporation at a separate facility in Lexington, Kentucky. Some of the production oriented functions were contracted to Kentucky Educational Television (KET).

The evaluation personnel continued as a division of the POC but some of the personnel of the other POC components were transferred to the corporate office in Washington, D.C.

Although the personnel on its staff changed from time to time, the Evaluation component performed the evaluation function with distinction from the time of its organization in 1973 to September 1, 1981 when further management reorganization again caused changes in personnel responsibilities that resulted in the reassignment of the evaluation activities to the division of marketing.

During the time Evaluation Component operated as a separate entity with its own personnel, it made a valuable contribution to the development of ACSN. This will be documented in the following pages which trace the beginning evaluation patterns that occurred at the AESP Experiment of 1974-76 continued as the AESP Demonstration 1977-79 and became ACSN 1980 to the present time.

The stages of development and research occurred in the following order:

1. The Experimental Phase 1973-76

   The emphasis during this period was on empirical data and in proving feasibility of programming, technology, network operation, and noting the achievement of the participants and the effect on their attitude.

   The design used both formative and summative evaluation and emphasized cognitive factors, attitude reactions, the reliability of the equipment, and the success of the operational procedures.

   Twelve major Technical Reports were issued during this time.

2. Preparing for Continuing the Project as a Demonstration 1976-78

   The emphasis during this phase was discovering the most important needs of the Appalachian people and using them in program selection and development, and follow-up surveys of the AESP experiment participants.

   a. Needs

      (1) Study of research literature (1960-75) about Appalachian needs - 1975

(2) An analysis of the needs assessment conferences held throughout Appalachia, March - July 1976

(3) Examples of updating needs (1977-1981)

The needs studies resulted in the publication of two major reports:

Technical Report No. 13 - Review of the Literature: Appalachian Needs in Five Programming Areas. Donna M. Mertens and William J. Bramble. June 1976. 71 pages

Technical Report No. 14 - Results of the AESP Needs Assessment Conferences. Donna M. Mertens and William J. Bramble. June 1976.

Many small surveys of target groups, course participants, advisory committees were made (1977-1981) to both update the results of the 1976 Needs Assessment conferences, and to identify the needs of special groups of professionals or workers.

b. Follow-up Studies

It was felt that vital input could be gained from previous course participants that would be helpful in developing programming for the AESP Demonstration. A survey was, therefore, made of the participants who had completed the first experimental courses in reading and career education.

The follow-up studies made in 1977 of these participants were reported in detail in Technical Bulletin No. 15, DPRI and CES Follow-Up Studies, prepared by Jody L. Fitzpatrick and Donna M. Mertens. July 1977.

3. Complete Evaluation Studies of the Major Courses and Workshops Offered by AESP 1977-79

The evaluation program included a thorough study of the participants, their achievements, attitudes, recommendations about course changes, and suggestions about topics for future programming. The evaluation instruments used in previous courses were modified to meet the needs of the demonstration.

b. Twelve major Technical Reports were issued during this phase of the evaluation.

c. The evaluations can be classified under the following categories:

(1) Workshops
    (a) Summer 1977
    (b) Fall 1977
    (c) Spring 1978
    (d) Summer 1978
    (e) Fall 1978
(2) Network Courses
    (a) DPRI
    (b) Career Education
    (c) Visual Learning
    (d) Teaching the Young Handicapped Child
    (e) Designing Success Strategies
    (f) Simple Gifts
    (g) Rehabilitative Nursing

4. Evaluation Studies of User Assessment and Satisfaction

These studies emphasized user assessment and satisfaction, and provided useful date to implement programming, marketing, network operations, and cost effectiveness (1978-1980).

a. Evaluation of courses and workshops
    (1) Course - Consumer Education, Spring 1980
    (2) Workshop - The Living Heart, July 1979

b. Student Profile Studies 1980-81

c. Surveys
    (1) Previews of a Proposed Course - 1978
    (2) Effectiveness of Recruitment Methods - 1981
    (3) Home Viewers Interest Survey - May 1981
    (4) Others

d. Special Reports
    (1) Summary Report of Telephone Logs, October 1, 1979 to January 31, 1981
    (2) Market Research Study
    (3) Legal Issues in the Eastern Coal Industry Evaluation, November 1980
    (4) Other special reports

e. Collecting, analyzing, and summarizing background information useful for ACSN program development, network operation, or management

(1) Summary of State Support of Adult Education

(2) Status reports on Education Requirements, Certificate Requirements for specific professions or fields of work

5. Evaluation Related Projects 1980-82

The basic thrust of these efforts focused on viewers needs, program quality, and the assessment of potential business areas for ACSN.

The above stages of the Evaluation and Research program that have been outlined above are described below in detail:

1. The AESP Experiment 1973-1976

The RCC Evaluation Component began the development of a design for the evaluation of the two experimental courses, "Diagnostic and Prescriptive Reading Instruction (DPRI)" and "Career Education in the Elementary Grades (CEE), "by identifying questions for which empirically based answers could be obtained.

a. How much did the participant learn?

b. To what extent were the participants persuaded to adopt a more positive attitude toward course objectives?

c. How much did the participants like the courses and the different learning activities?

d. How well did the technical equipment work?

e. What were the characteristics of those taking and administering the course?

f. What was the relative effectiveness of each of the activities in the learning sequence?

After identifying the basic questions, an information collection plan was developed to answer them. The plan called for the implementation of the various strategies that were used:

a. Pre-post course testing of cognitive and affective behaviors of the participants
b. Achievement testing after each unit of instruction
c. Teacher attitude questionnaires
d. User rating of the quality of the course and the different presentation modes
e. Opinion ratings of equipment operation, and reception quality
f. Teacher practice inventory
g. Feedback questionnaire
h. Lab activities ratings
i. A field study on the impact of selected activities in the course learning sequence

The tests served instructional as well as evaluation functions by demonstrating how effective the materials and activities in each unit were in teaching the stated objectives. They also gave the participants an opportunity to evaluate their understanding of the concepts and skills introduced during the unit since correct answer keys were posted immediately after the participants were tested.

In order to obtain some ideas about the receptivity of the participants to the ideas and procedures advocated in the AESP courses, an affective

as well as a cognitive dimension was added to the pre-test design. Participants were asked to mark the place on a five-point Likert scale that best described their attitudes toward each statement. A field study was then developed to obtain information on the effect of the courses on actual classroom teaching procedures.

This, then, was the evaluation design of the AESP experiment and the scope of the initital work of the RCC evaluation component personnel. The component was concerned with serious research; it gathered data carefully, consistently, and thoroughly; analyzed the data; and published the results. Empahasis was on the more formal aspects of research and evaluation although the findings assisted network operations, identified needs and interests, and paid attention to user assessment and satisfaction. The evaluation design also affected the final form of the courses, since adjustments were made to content, planned activities, materials, and schedules because of the formative evaluations that were conducted to assess the course units prior to their being broadcast.

The major goals of the evaluation program were (1) to gain specific empirical information about the courses; (2) to understand the attitudes of the participants and how these attitudes influenced their behavior; (3) to assess the effectiveness of the network in providing helpful programming; the quality of reception; and (4) to determine the practicality of using satellite technology to distribute the programming. Although cost effectiveness was not one of the orginial topics of investigation, an analysis of the cost of providing the service showed that the ACSN delivery system was both cost effective and economically desirable. It should be again stressed, however, that while the Appalachian Education Satellite Project provided quality inservice education for teachers, it was primarily an experiment to demonstrate the feasibility of delivering such courses via satellite to sparsely populated areas.

The evaluation component carried out a thorough evaluation on the 1974-75 experiment and published the results in a series of comprehensive technical reports:

1. AESP Data Base Information: Rationale, Data Collection Procedure, Interpretation of Results. Prepared by William J. Bramble, Claudine Ausness, Larry Harding and Robert Wetter. Winter 1973.

2. An Experiment in Educational Technology: An Overview of the Appalachian Education Satellite Project. Prepared by Claudine Ausness and Betty Bowling. March 1974.

3. Formative Evaluation Study for AESP Diagnostic and Prescriptive Reading Courses. Prepared by William J. Bramble, Claudine Ausness and Robert Wetter. October 1974.

4. The Evaluation Design: Summer COurses, 1974. Prepared by William J. Bramble, Claudine Ausness, Robert Wetter and James R. Freeman. July 1975.

5. Performance of AESP Transmission/Reception Equipment (Summer and Fall, 1974). Prepared by William J. Bramble, Claudine Ausness and James R. Freeman. July 1975.

6. Student Ratings of Instructional Activities: Diagnostic and Prescriptive Reading Instruction, Summer, 1974. Prepared by Rodger Marion, William J. Bramble, Robert Wetter and Cathy Whitton. July 1975.

7. Student Ratings of Instructional Activities: Diagnostic and Prescriptive Reading Instruction, Summer, 1974. Prepared by Rodger Marion, William J. Bramble, Robert Wetter and Cathy Whitton. July 1975.
8. Student Achievement: Diagnostic and Prescriptive Reading Instruction Course, Summer 1974. Prepared by William J. Bramble, Rodger Marion and Claudine Ausness. August 1975.
9. Student Achievement: Career Education in the Elementary Grades, Summer 1974. Prepared by Rodger Marion, William J. Bramble and Claudine Ausness. August 1975.
10. Cost stimation Model for Alternative Course Formats and Delivery Modes. Prepared by William J. Bramble, Claudine Ausness and Donna Mertens. September 1975.
11. Summative Evaluation of Career Education in the Secondary School Course, Fall, 1974. Prepared by Diane Maynard, Rodger Marion and William J. Bramble. September 1975.
12. Summative Evaluation of Diagnostic and Prescriptive Reading Instruction K-6 Course, Spring, 1975. Prepared by William J. Bramble, Diane Maynard and Rodger Marion. September 1975.

The comprehensive evaluation of the programming and network operations of the initial experimental year showed:

- Teachers liked the programming.
- The knowledge gained by teachers was at least equal to that obtained by more conventional methods.
- The skills and practices learned in the courses were being applied in the schools.
- Courses via satellite were, in many instances, preferred to the more formal setting of a college campus.
- Course delivery was cost-effective compared to conventional methods.
- Most important for the future of AESP - a demand was created for

the permanent established of an expanded service.

Since the final results of the experiment were reported in detail in the "Final Report of the AESP Experiment", submitted to the NIE in 1977, and in special bulletins such as, "A Follow-Up Report on the Appalachian Satellite Project," by William J. Bramble, Catherine E. Hensley and Dennis Goldstein, in Vol. 3, No. 2, 1976-77 Journal of Educational Technology Systems (reprinted as a separate document), no further discussion of the evaluation results of the experiment are included in this report.

2. Preparing for Continuing tne Project as a Demonstration

In order to prepare for the expansion of the number of sites, programming, personnel, services, and changes in financing that the demonstration was bringing, the Evaluation Component conducted important surveys of Applachian needs and made follow-up studies of the attitude and reactions of the participants of the two courses delivered during the experimental phase of AESP operations. Both the "needs" and the "follow-up" studies were designed as part of a planning effort by AESP in preparation for its continuing operation in serving the needs of the Appalachian Region.

a. Needs

One of the strongest features of ACSN has been the emphasis placed on identifying local needs as a basis for program selection. In the initial experimental program, the selection of inservice graduate courses was based on a study of a 20 percent random sample of the reactions of Appalachian teachers made by a professional research and development firm, the Arthur D. Little Company. A majority of the teachers questioned indicated that they felt their training was not sufficient in methods for teaching disadvantaged students, in knowledge of vocational opportunities open to their pupils, in reading instruction, and in curriculum planning and development. Sensing the importance of considering local needs, the evaluation staff gradually developed a system of identifying and updating these needs for use in program development.

The demonstration, therefore, as in the past was begun with a new assessment of needs throughout the region.

As a first step the evaluation component had already conducted an extensive review of the literature describing the research that had been conducted and reported in Appalachia since 1960.

A comprehensive program was, therefore, begun in 1975 which:

(1) Surveyed the literature (1975)

(2) Used the findings to sponsor needs sasessment conferences (1976)

(3) Developed procedures for updating the needs (1977-81)

The details of these three activities are summarized as follows:

(1) The Survey of the Literature, 1975

The RCC Evaluation Component based the survey on the following sources:

(a) The Appalachian Research Reports prepared by the Appalachian Regional Commission 1961-1977, of which No. 12 (1970) was specifically designated as a needs assessment although it was limited to a discussion of the needs of teachers.

(b) Documents and reports prepared by other federal agencies, state and local governments.

(c) Reports prepared by universities and independent agencies such as The Center for Developmental Technology, Washington University, St. Louis, Mo. - An Analysis of Educational Needs and Technological Opportunities, by Morgan, Singh, Rothenberg and Robinson.

(d) Annual Report, Vol. II, Morehead State University, Kentucky, 1974.

(e) The technical reports of the Appalachian Education Satellite Project, Vol. I - XII.

(f) The U.S. census reports about the entire population of Appalachia.

(g) A computer search was conducted using the Educational Resources Information Center (ERIC) system.

(h) Health information was obtained from a computer search of the "Medline" system, National Library of Medicine, Bethesda, Maryland.

Over 75 documents were included in the review. Evidence was obtained for the existence of a wide variety of needs. The findings were studied and grouped into several categories to provide a basis for further studying the problem of needs.

o Education

Inservice education for teachers, especially in the areas of reading, special education, early childhood education, career education, vocational education

o Medical and health needs

Continuing education for medical and health personnel, consumer education and serivces

o Government

Community facilities utilization, industrial and economic development, fiscal and administrative operations, coordination of social services, solid waste recycling, and leadership training for government personnel

o Business and industry

Continuing education program and technical assistance for business, manpower training, planning for industrial development, energy conservation and production, and environmental control

o Human resources and services

Low income, high unemployment, deficits in education and living standards, eduction for employment, vocational rehabilitation, employment services, nutrition and housing

The needs listed under the above categories were not formulated as the result of face-to-face discussions sponsored by AESP/ACSN, but were the findings reported by research done by others prior to 1976. They were, nevertheless authentic and represented needs as they existed in Appalachia in particular periods of the recent past. The evaluation component did not compile them as a basis for the demonstration program but as a guide in planning for and developing needs assessment conferences where representative citizens of an area could come together to express their opinions about the needs of their community and could indicate priority ratings of their importance.

ACSN/AESP considered the review of the literature about Appalachian research an important procedure because it provided:

- Insights into the educational needs of Appalachia
- A basis for suggesting the most important general programming areas for study and discussion
- A background for the construction of the instruments to be used at the needs assessment conferences, for preparing the suggestions to go to community agencies to help them determine whom to invite and for preparing the background and support material to be furnished the participants.

The evaluation component was able to point out trends and concepts from the literature which showed, for example, the need to think of education in Appalachia as a lifelong learning experience that goes beyond formal schooling and involves continuing education for all members of the community.

As a result of the study the RCC Evaluation Component issued Technical Report No. 13, Review of the Literature: Appalachian Needs in Five Programming Areas. Donna M. Mertens and William J. Bramble. June 1976. 71 pages.

4. Needs Assessment Conferences 1976

A needs assessment conference should be more than a gathering of representatives of a community to hold a general discussion about common needs. If it is to be productive and worthwhile, it must be carefully structured, decisions must be made about who will participate, and procedures must be developed to insure that all the potential needs will be considered and given priority ratings.

The purpose of the needs assessments conferences held throughout Appalachia in 1976 was to identify needs firsthand and establish priority ratings of the Appalachian communities in the areas of education, medical and health services, government, business and industry, and human resources and services. The conferences were designed to answer the following questions:

(a) Are the needs as reflected in the literature an accurate representation of the needs of Appalachia?

(b) What other needs exist which have not yet been documented?

(c) What are the priorities in terms of each geographical area?

(d) What are the priorities for the Appalachian Region?

(e) What days during the week and times during the day would be most desirable for broadcasting to each population?

During the months of March, April, and May 1976, one-day meetings for this purpose were conducted at:

Huntsville, Alabama
Atlanta, Georgia
Natural Bridge, Kentucky
Jackson, Mississippi
Jamestown, New York
Boone, North Carolina
Columbus, Ohio
Harrisburg, Pennsylvania
Greenville, South Carolina
Cacapon, West Virginia

Maryland did not hold an official needs assessment conference because a large group of representative citizens had attended a special conference at Gaithersburg, Maryland in February 1976, concerning the further use of communication technology in education just one month before the forms and questionnaires for the needs assessment conferences were available. Since similar discussions were held at the Maryland meeting, the results were made available to the RCC Evaluation Component. Maryland leaders did assist with the collection of data by participating in the West Virginia conference held in Cacapon.

The task of inviting representatives to the 1976 needs assessment conferences was the joint responsibility of the Regional Educational Service Agencies (RESAs) and the Local Development Districts or other agencies which served as hosts for the meetings. These sponsors were urged to see that those invited to attend truly represented important community groups. It was also suggested that the conference should not be too large or too small so there would be ample opportunity for each one to express his opinions and participate in the discussion. Thirty-five to sixty individuals seemed an ideal number.

Over 400 local representatives attended the twelve needs assessment conferences. Of this number 38 completed forms designed to assess local needs:

121 represented education

92 represented medical and health

51 represented business and industry

63 represented human resources and services

54 represented government

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381 Total

In general the agendas of the various meetings followed a similar pattern. An overview of AESP was given by AESP central office, RCC staff, or regional officials. Individuals selected to represent the five needs areas presented short summaries of their impressions of local needs in their particular fields. Attendees then formed small discussion groups based on the subject area they represented. Needs assessment forms developed by the RCC Evaluation Component were distributed. The participants were instructed to rate the list of needs contained in the form according to the following scale:

1—extremely strong need

2—very strong need

3—strong need

4—moderate need

5—little need

6—very little need

7—no need

The form also asked the participants to add and to rate additional needs which had not been listed.

Following the completion of the ratings, each group worked together to identify the five priority needs within the subject area; discussed the reasons for their severity; and identified ways that AESP could best serve their needs.

The RCC Evaluation Component used the following procedures to analyze the data collected from the needs assessment conferences:

(a) The identification information was synthesized and compiled according to the position held by each participant by subject matter area.

(b) The ratings of the needs were combined across states. Mean, standard deviation, and frequency were computed for each need rated. Each participant's rating was given equal weight.

(c) A complete list of the additional needs was complied.

(d) The utilization schedule data was combined across sites and similar trends are reported for each subject area.

(e) The list of priority needs was synthesized and results reported by state and by subject area.

The results of the needs assessment conferences were published in the 110-page Technical Report No. 14, Results of the Appalachian Education Satellite Project Needs Assessment Conferences, by Donna M. Mertens and William

J. Bramble, June 1976.

This document has proven to be one of the most used reports of the RCC Evaluation Component. It contains in addition to a description of the conferences and the evaluation design, a thorough presentation of the priority ratings of the Appalachian needs in each of the five subject fields selected for study. It is still useful in 1982 because, although no needs assessment conferences have been held since 1976, the needs have been carefully updated and augmented by advisory groups, target audiences, professional associations, and members of the corporate staff of the ACSN.

It should be understood that the results of a needs assessment conference reflect the feelings of local representatives and are not a quantative or scientific assessment of the discrepancies between the current status and the desired goals of a region. Nevertheless, it is of great importance to know what the people of a region believe their greatest needs to be. This information is basic to designing programs for local use and for helping communities set their sights.

(3) Up-dating the "Needs" Data

In order to insure that ACSN continues to be responsive to local needs and interests, input from individual citizens, local advisory board members, cable operators, and local communities were sought regularly by the evaluation component. This local input into program selection has resulted in the identification of specific priority topics within such categories as children's programs, aging, consumer information, changing family, business and government, science, life and health, and the arts.

Outreach programming is also based on identified needs and, therefore, needs assessments were conducted in order to determine the educational and training requirements of specific occupational groups. Information was obtained through surveys of the specific occupational groups, contact with professional associations concerning training and requirements, and from the program participants themselves. Suggestions about course revision, topics for future programming and general reactions were always asked from participants of courses and workshops.

Examples of the many small surveys that were undertaken and a summary of their findings follow: (Note the emphasis on securing information useful for program development, marketing and network operations.)

(a) Assessment of Engineers Program Interests, Summer 1978

The AESP and the Association for Media-based Continuing Education for Engineers (AMCEE) decided to jointly conduct an investigation to secure information to enable AESP management in cooperation with AMCEE representatives to determine the programming in engineering to be broadcast over the AESP network. The planning for the survey began in July 1978 and included:

- The design of a questionaire
- The selection of a sample
- The development of procedures for administration

The questionaire was designed to determine the

- Characteristics of the respondents
- Topics of interest
- Time of day and day of the week most convenient for attendance
- Type of credit that is desirable
- Number of meetings the engineers were willing to attend
- Cost factors
- Company policy with regard to continuing education
- Personal experience with continuing education

The sample was selected from the following sources:

- Recommendations of the deans of engineering schools located in each state having network sites

- A systematic selection from lists of members of professional societies of engineers
- A stratified random sample of manufacturing firms who employ over 100 persons in each county in the AESP service area

The carrying out of procedures for administering the assessment of engineers needs study was made the responsibility of the AESP cluster directors located in the various communities of Appalachia. The Cluster directors received a set of instructions, sample letters for manufacturing representatives and engineers, the questionaires, a list of the engineering college deans in their state(s), a list of the engineer's professional society's chapter and state presidents, and a list of the manufacturing firms in their state(s) which employ over 100 people. The cluster directors were advised to:

- Call the dean of the engineering school and inform him of the plans, ask for suggestions of ways to reach practicing engineers, and secure information about the college's continuing education program
- Call the chapter presidents and ask for mailing lists of members
- Send five copies of the instrument to each

manufacturing firm and ask the contact person to distribute them to five engineers

The expected results included the amassing of firsthand information concerning engineering programming needs in rural areas to establish local liaison, providing information for further planning, and enabling participants who later attend AESP programs to serve as a sample for the collection of more extensive information.

It was anticipated that approximately 2700 engineers would participate in the study but circumstances in some of the clusters reduced the total to approximately 2170 or 84 percent of the total expected. Four hundred fifty engineers from eleven clusters responded to the questionnaire, a return of 20 percent. The order of frequency by type of engineers was civil, electrical, mechanical, and other. Only eleven chemical engineers were represented. Sixty percent had completed a bachelor's degere and 15 percent more held advanced degrees; 51 percent were contacted through a professional society's mailing list; and 49 percent received the questionnaire at work.

The returns were studied and analyzed by the evaluation component. Among the important results which were published are the following examples:

- Evening is overwhelmingly the preferred time for programming (78%).
- No particular day of the week was overwhelmingly preferred over any other day, but weekdays were overwhelmingly preferred to weekends.
- Graduate credit (43%) and continuing education credit (30%) were mentioned most frequently as being desirable types of credit. A certificate for attendance was acceptable to 16% of the respondents.
- A willingness to attend approximately nine sessions, on the average, was indicated.
- Program interests ranged from solar energy utilization (40%) to traffic techniques and management for women (5%). The most highly noted topics included:

  Solar energy utilization
  Legal aspects
  Engineering economics
  Time management
  Quality control
  Business and technical writing

  Topics of particular interest for civil engineers were:

  Hydraulic structure design

Water treatment

Topics of particular interest for electrical engineers were:

Power systems
Computer controls
Microprocessors

A majority (58%) indicated a willingness to pay to attend the programs.

ACSN used the results of this study with caution because it was based on the limited data of a 20% return but it was a valuable guide to decision making and provided important liaison contacts with the private sector, technical institutions, professional trade associations, and technical societies. It is a good example of the thoroughness of the work of the RCC Evaluation Component.

As a result of this survey which identified engineering economics as one of the more pressing needs of engineers in Appalachia, AESP developed a course titled, "Engineering Economy." It was also sponsored by the University of Kentucky College of Engineering and by the Association of Media-based Continuing Education for Engineers (AMCEE). The course was broadcast in the spring of 1979 for 1.6

continuing education units. One hundred eighty-four (184) engineers at 25 AESP sites participated. The course was based on materials developed at Colorado State University by Sanford B. Thayer, and consisted of videotaped programs, a study guide, and three interactive seminars.

Participants' performance on a test of their knowledge of engineering economics from a pretest average of 15 out of 28, corrected to a post-test average of 24 out of 28, indicating that participants' learning was positively affected by the course.

The RCC Evaluation Component planned the evaluation of this course and prepared a report of approximately 50 pages. This report concluded with the following observation:

> Responses to an overall evaluation of the course indicated that most participants:
>
> - Signed up for the course to learn new ideas that would help them in their jobs
> - Felt that the course presented many practical techniques
> - Found the homework problems useful in showing them how to apply what they had learned
> - Were planning to use what they had learned

(b) Small scale but important surveys were made of target audiences:

- Site directors regarding community interest in credit courses, August 1979

Site directors were asked to react to a list of 52 courses by checking those which they thought would be of interest to persons in their community. Fourteen of the courses were selected by 50% of the respondents. The most frequently selected courses were:

o Managing a small business

o Designing home interiors

o Aging

o Marketing

- Site directors regarding occupational groups that would be resposive locally to ACSN programming, August 1979

Site directors were asked to indicate which of 73 occupational groups would be responsive to programs developed for them. Eighteen occupations were selected by at least 50% of the respondents:

o Firefighters

- Nurses
- Police
- Elementary teachers
- Senior citizen center workers
- Child care workers
- Preschool teachers
- Emergency medical personnel
- Business owners and managers
- Secondary teachers
- Nurses' aides
- Human resource para-professionals
- Corrections personnel
- Special education personnel
- Social workers
- Rehabilitation counselors
- Secretaries
- Beauticians

The results of these two typical surveys were made available to AESP personnel responsible for selecting future courses and for determining priorities for audiences to be served.

(c) The evaluation results of the workshops held 1977-78

A three stage procedure was used in which all workshop reports were reviewed using several criteria including audience reactions, audience interest as evidenced by number of participants, technical quality, currency of the information presented, and appropriateness for home viewers. These initial reviews included questions that needed to be answered in order to determine whether to reuse the program. The third stage involved placing each program into one of the following categories: use, no qualifications; do not use; use if questions are answered positively. These recommendations were than presented to the RCC programming committee and discussed in terms of other issues including copyright and cost. Following this, a schedule of 15 workshops was developed which addressed inservice training needs of professionals in all five target groups previously identified. These procedures produced a balanced schedule of quality workshops for ACSN's initial 15-week delivery period beginning October 1979.

(d) The program interests of nursing personnel

A questionaire concerning future program interests was distributed to the 280 participants of a Spring 1979 an ACSN course entitled "Rehabilitative Nursing for the Older Client (RNOC). One hundred and forty-eight (148) nurses responded.

A majority of the respondents were RNs employed in a nursing home setting. The highest level of education completed was a diploma degree. Strong interests were indicated in receiving continuing education units and attending future inservice workshops as well as courses. The participants indicated a need for programming in the following areas: dealing with the terminal patient, stress, drugs, depression, physical rehabilitation, and communication skills.

e. Cable company training needs 1980

Interviews were completed with 15 station managers at 15 cable companies carrying ACSN programming. These companies varied in size with an average of 31 employees but the actual number of workers varied from two to 157. The most frequent categories listed were:

Broadcast technician/engineers (113)
Secretary (42)
Manager (26)

Specific information concerning the training needs of each of these occupational categories was collected. Course needs as suggested by managers were:

Theoretical video training
Receipt of over-the-air signals
Antenna design
Interface prevention
Basic and advanced electronics
Microwaves
Electrical cable wiring

Course needs suggested by secretaries were:

Remedial grammar
Office operations
Office skills
General management
Effective phoning

Courses suggested by managers were:

Theoretical video training
Business and marketing
Office operations
Antenna design
Interference prevention

Cable service generally

Although these results are based on a small sample (N = 15), some trends are evident. Broadcast technicians/engineers appear to be a most appropriate target audience for training. Updates on the newer technologies and techniques are the most appropriate topics. The format should probably be a combination of video and print. The video could be telecast late afternoon and used as telecast either in a group or individually. A print component could be designed to augment the telecast and could be self-paced, individualized instruction. Other cable company employees could be encouraged to participate, but only as a secondary audience.

b. Follow-up studies

The purpose of the follow-up studies was to measure attitudes about reading and career education one year and six months or two years after the course had been completed, to obtain feedback on the effectiveness of the techniques stressed in the course; to learn the extent of their implementation in the classroom; and to secure suggestions for reorganizing the courses for future deliveries.

It was felt that vital input could be obtained from previous course participants. Selected for the study were the 282 teachers who had completed the 1975 DPRI course, and the 242 who had completed the 1974 career education course for secondary teachers.

The evaluation instrument for the DPRI follow-up was a special question form consisting of 18 open-ended items designed to gain information from the participants about the use of various diagnostic and prescriptive reading techniques in their classroom and their current attitudes toward certain instructional components of the DPRI course. The evaluation instrument for career education was very similar to the reading instrument in form but, of course, differed in content since it was concerned with careers rather than reading.

Both the follow-up studies used the results from the pre- and post-instruction tests that were made by these same participants during the delivery of the courses in 1974 and 1975. The use of this data permitted comparisons to be made in teacher attitudes toward reading and career education over a two or more year period. The follow-up studies were designed to examine three specific research questions:

(1) How had participants' attitudes changed over time given the opportunity to implement the techniques in their classrooms?

(2) How did the participants feel about specific instructional components of the courses one and one-half or two years after completion and what were their suggestions for revisions?

(3) Had participants been able to implement techniques they had learned in the courses in their classrooms and which techniques had proven most successful in this process?

The evaluation forms for the follow-up studies were mailed to the 282 who had completed the DPRI course and to the 247 who had completed the Career Education course.

Completed forms were received from 59 of the DPRI participants (21%) and from 49 of the Career Education participants (20%), a total of 108 of the 529.

Data concerning participants' attitudes towards diagnostic and prescriptive reading techniques revealed that participants had maintained their general positive attitudes one year and six months following the conclusion of the course. While participants' attitudes were relatively positive upon entry into the course, a significant gain in attitudes was demonstrated in the post-course and follow-up measures, with the gain being demonstrated between pre-course and post-course measures. The maintenance of these positive attitudes after having applied the techniques in the classroom provides substantial evidence for the success of the course.

The self-report measures indicated that participants were applying the diagnostic and prescriptive reading techniques in their classrooms and were generally satisfied with the results.

Participants viewed the course as a positive experience which they would sign up for again if they had not already taken it. The instruction was viewed as equal or superior to instruction via regular television or a live instructor.

Participants indicated the the interactive seminars could be improved by more direct and practical answers to questions, with panelists making an effort to apply their answers to classroom situations. A fifteen-minute question-generation session before each seminar was viewed as the most helpful procedure in improving the quality of questions. These suggestions were incorporated in the procedures when DPRI was again offered as a course.

Results indicated that the participants in career education felt they had learned many useful skills in the course which they were able to apply on occasion in their classrooms. Those who had used career education techniques had positive feelings concerning the experience. However, a substantial proportion of the respondents had encountered difficulties in applying the techniques either through lack of materials or lack of support from school officials. Data concerning participants' attitudes toward career education as measured in pre-, post-, and follow-up administrations indicated that while participants' attitudes had risen on the immediate post course administration, these attitudes were not maintained at the time of the follow-up. Attitude scores for the pre-course were 3.86, which rose to 4.40 for the post-course, but were 3.88 for the follow-up.

The data concerning the implementation of career education concepts in the classroom have provided some clues as to the reason for the decline. The difficulties encountered in implementation are an obvious problem in a relatively new curriculum area such as career education. These findings suggest a need to educate school administrators concerning the importance of career education and for adapting and maintaining a flexible school environment in which new curriculum areas may be tested.

The career education course participants' reaction to the course and its specific instructional components was generally positive and they indicated they would enroll again if they had not already taken it.

A majority of the participants felt the seminars had allowed them to have real input into the course. A five-minute intermission for the generation of questions half-way through the seminar was viewed as the preferred strategy for generating questions.

A few general conclusions may be drawn from the findings. They are:

- A positive reaction and attitude of support was revealed for the AESP course offerings. These attitudes were evidenced through participants' ratings of instruction by satellite as compared to other modes of instruction, their willingness to repeat the experience, their expressions concerning the utility of techniques learned, and their implementation of these techniques in the classroom. In addition, the degree of implementation of instructional techniques serve to validate the far-reaching effects of the AESP.
- The data provided valuable feedback concerning the long-term

effects of course participation. These effects appear to be contingent upon the degree to which the course is directed toward activities that can be implemented in the classroom. Support services for this implementation to individual participants and to school systems themselves is suggested as a future direction for AESP activities.

- The results of the follow-up study provided feedback on the modification of AESP course delivery and administration, and made available data to be used in determining AESP directions.

3. Complete Evaluation Studies of Major Courses and Workshops Offered by AESP 1977-1979

The evaluation of courses was now pointed more to providing a profile of the participants, how well they achieved the course objectives, their attitudes and their suggestions about course revisions and future course offerings. Instruments used in previous courses were modified and new instruments were developed for different delivery modes such as cable systems and for viewing the courses in private homes. Twelve major technical reports, in a continuing series, were issued between 1977 and 1979:

#16. Development, Delivery and Evaluation of AESP's Visual Learning Course. Prepared by Donna M. Mertens, August 1977.

#17. Summative Evaluation of Diagnostic and Prescriptive Rading Instruction K-6 course, Spring 1977; and Career Education in the Elementary School Course. Summer 1977. Prepared by Lea J. Perritt and Donna M. Mertens. November 1977.

#18. Summative Evaluation of Workshops, Summer 1977. Prepared by Lea J. Perritt and Donna M. Mertens. December 1977.

#19. A Formative Evaluation of Teaching the Young Handicapped Child. Prepared by Jody L. Fitzpatrick. June 1978.

#20. Summative Evaluation of Workshops, Fall 1977. Donna M. Mertens and Lea J. Perritt. June 1978.

#21. Summative Evaluation of Degigning Success Strategies, Fall 1977; and Diagnostic and Prescriptive Reading Instruction K-6 Course, Fall 1977. Prepared by Lea J. Perritt, Deborah Daugherty and Donna M. Mertens. July 1978.

#22. Summative Evaluation of Simple Gifts, Spring 1978; and Designing Success Strategies, Spring 1978. Prepared by Lea J. Perritt, Deborah Danner and Donna M. Mertens. November 1978.

#23. Summative Evaluation of Workshops, Spring 1978. Edited by Lea J. Perritt and Donna M. Mertens. November 1978.

#24. Summative Evaluation of Teaching the Young Handicapped Child, Spring 1978. Prepared by Deborah Daugherty and Donna M. Mertens. November 1978.

#25. Summative Evaluation of Workshops, Summer 1978. Edited by Donna M. Mertens and Lea J. Perritt. April 1979.

#26. Summative Evaluation of Rehabilitative Nursing for the Older Client, Summer 1978; Simple Gifts, Summer 1978; and Diagnostic and Prescriptive Reading Instruction, Summer 1978. Prepared by Lea J. Perritt, Deborah D. Danner, and Deborah Daugherty. May 1979.

#27. Summative Evaluation of Workshops, Fall 1978. Edited by Lea J. Perritt and Donna M. Mertens. May 1979.

These technical reports can be classified under the following categories:

The Workshops of 1977-78

Reports Nos. 18, 20, 23, 25, 27

The Network Courses

DPRI - Sections of Reports Nos. 17, 21, 26

Career Education - Sections of Report No. 17

Visual Learning - Report No. 16

Teaching the Young Handicapped Child - Reports Nos. 19, 24

Designing Success Strategies - Report No. 21

Simple Gifts - Sections of Reports Nos. 22, 26

Rehabilitative Nursing for the Older Client - Section of Report No. 22

a. Workshops

AESP initiated an extensive program of workshops in the summer of 1977. These workshops soon became an important part of AESP programming and attracted a large enrollment. A summary of the workshops during their formative years 1977-78 is as follows:

Summer 1977 - 9 workshops with 1,228 participants at 20 sites

Fall 1977 - 9 workshops with 1,081 participants at 36 sites

Spring 1978 - 10 workshops with 1,762 participants at 39 sites

Summer 1978 - 7 workshops with 1,076 participants at 39 sites

Fall 1978 - 10 workshops with 3,838 participants at 38 sites

Totals - 45 workshops with 9,986 participants

The topics of the workshops were based on the priority needs identified by the needs assessment conference of 1976 as updated with the special studies made by the evaluation component.

While the formats of the workshops were similar, each was uniquely planned around the pertinent aspects, needs, and resources of the topic. The workshops were relatively short experiences generally of one session but in a few cases more. They usually consisted of a video-taped program, a live interactive seminar, and distribution of related printed material designed to supplement the information presented in the tapes and seminar.

Another focus of the planning stage was the formative and summative evaluation of the workshops. The evaluation component developed and administered several instruments designed to give both participants and site monitors an opportunity to evaluate the videotapes, seminars, and equipment functioning. In addition, participants provided background information about themselves, answered cognitive questions designed to measure attainment of specific objectives, and responded to needs assessment items intended to determine future program interests.

The RCC Evaluation Component paid particular attention to each of the 45 workshops offered in 1977-78 and published a major report for each of the five semesters listed above. These five reports constitute a major part of the work of the evaluation component during this period of time. Summary excerpts from these reports are as follows:

(1) Report No. 18 - Workshops Summer 1977

Nine workshops were planned and delivered in the summer of 1977 on the following topics: special education, child abuse, diagnostic and prescriptive reading instruction, cardiovascular physical assessment, and home energy conservation.

A majority of the workshop participants were females and worked in rural communities, although more males than females attended the energy conservation workshop. School personnel represented the majority of the audiences at the special education and DPRI follow-up workshops. The workshops in cardiovascular physical assessment were attended primarily by nursing personnel; and social workers represented the majority of particpants at the child abuse workshops.

For all the workshops both the videotaped programs and the seminars received overall ratings between "good" and "excellent." The highest ratings were received for the first home energy conservation workshop.

Specific cognitive and attitudinal objectives were developed for each workshop. At the completion of a workshop participants responded to items designed to measure attainment of each objective. Both the cognitive and affective objectives were generally achieved by the majority of participants at all the workshops.

Needs assessment results indicated a strong interest in additional programming in the areas of special education, reading instruction, nursing care, and human resources. Topics on the handicapped which were rated highly included working with parents, mainstreaming, instructional materials, and language development techniques. A strong interest in several problems related to reading instruction was expressed including motivation, comprehension skills, classroom management, and under achievement.

Areas of nursing care in which participants indicated the most interest were nursing care for adults and respiratory nursing care for all age groups. The human resource topics most frequently mentioned were counseling and interviewing techniques with parents and children, child abuse, single parent families, and foster parenting.

The results of the 1977 Summer Workshops indicated that workshops are an effective way to deliver needed services. AESP, therefore, planned to continue this programming format in the future.

(2) Report No. 20 - Workshops Fall 1977

This report continues the documentation of AESP delivery of workshops in the fall of 1977. It is similar in design to the Workshop Report No. 18. Details about the evaluation are given in a separate chapter for each of the nine workshops included in the program: education for the gifted and talented; financial resources; credit needs and job creation in Appalachia; social service delivery in rural areas; home energy conservation; child abuse; and parent effectiveness.

Two of the workshops experimented with a change of format. The workshops on social service delivery in rural area; and financial resources, credit needs and job creation in Appalachia were planned in conjunction with scheduled professional conferences and consisted of by a panel of experts from the conference, an interactive seminar, and the distribution of related printed materials.

The participants represented a vareity of occupations including teachers, university personnel, social workers, nurses, building contractors, and small business owners. A significant number of persons did not identify themselves with any occupation but rather indicated that they were students or parents.

The ratings of the videotaped programs and the seminars were between "good" and "very good" for all workshops. The cognitive and affective objectives were generally achieved by a majority of the participants.

Needs assessment results indicated a strong interest in additional programming in the areas of gifted education, social services, and parenting skills. Differentiated curriculum received the highest rating in the area of gifted education. Social service topics mentioned frequently were child and family counseling, child development, the school's role in child abuse, child abuse referral service, child welfare, and drug and alcohol abuse. Topics of interest related to parenting skills were communication, discipline, and conflict resolution.

Report No. 23 - Workshops Sping 19[illegible]

The evaluation component continued in the same manner as previously to document the workshops presented in the spring of 1978. These workshops were concerned with the following topics: arts and aging, resource conservation for educational institutions, the University of Cincinnati external degree program in health planning administration, developing a positive self-concept, advisory board teleconferencing, teacher values and discipline, and the copyright law.

AESP experimented with a variety of techniques during this Series of workshops, including telephone patches and structured onsite activities.

The phone patch, which was used during the self-image programs, was rated between "good" and "very good" at the first session, and "very good" at the second session. The use of the phone patch appeared to an effective means of increasing participants involvement in the workshops.

The results seemed to be quite similar to previous workshops.

Needs assessment results indicated interest in future programming on a wide range of topics, including crib deaths, parent effectiveness, family counseling and communication skills, energy conseration and budgeting methods for educational institution, emergency medical services, board training, and program development techniques for the older person. Respondents also indicated an interest in college level credit courses particularly at the graduate level, and a willingness to pay a small fee to attend. AESP planned to continue the development and delivery of workshops and to expand the range of target audiences being served.

Report No. 25 - Workshops Summer 1978
Report No. 27 - Workshops Fall 1978

Seven workshops were delivered in the summer of 1978: communication skills for health professions; resource conservation for educational institutions; nursing practice implications from patient education research; flammable liquid, gas, and hazardous materials spills; small farm marketing; and rape crises in rural areas.

The needs assessment results indicated a strong interest in additional programming in the areas of social services, nurses, farming, educational administration, and fire service. Highly rated topics in social services included spouse abuse and family therapy; in nursing, effective nursing management and crisis intervention; in farming, market development, production and management techniques, and part-time farming. Educational administrators expressed interest in fiscal and personnel management areas. Fire service needs included fire prevention and survival, vehicle rescue operations, and hazardous materials and flammable liquid safety and transportation.

During the fall of 1978 the topics of the workshops were: emergency vehicle rescue, "Reading is Fundamental," dealing with declining enrollments, building a successful small business, the Appalachian child, teaching reading in adult basic education and cardiopulmonary resuscitation.

Needs assessment results indicated interest in additional programming: vehicle rescue techniques, teaching adult basic education, operating a small business, and health-related topics for the general public.

An analysis of all the workshops offered by the network, including those delivered during the closing days of AESP and the emerging of ACSN, provides useful data about the success of the workshop program at this time. Of special interest from a program development standpoint is the information about needs assessment for future programming. The updating of needs and the gathering of needs assessment data as part of the evaluation design for the workshops proved to be one of their strongest contributions.

Report No. 27, concerning the Fall 1978 workshops, is the concluding technical report published by AESP. With the coming of ACSN in 1979 the change in evaluation emphasis already reported earlier in the chapter brought a close to the detailed scientific gathering of course data and an expansion of collecting and analyzing information about user satisfaction, network efficiency, and financial stability.

b. The Network Courses (1977-79)

(1) The DPRI and CEE Courses

The courses in reading (DPRI) and in career education (CEE) that initiated the AESP experiment were carefully evaluated in 1975-76 as previously explained. The results caused modifications to be made in course delivery and content. Each course was then rebroadcast to Appalachian educators. A third delivery of DPRI occurred in the spring, and of CEE in the summer of 1977. The complete evaluation of these revised course presentations was published in Technical Report No. 17.

Evaluation included pre- and post-test measures of cognitive and affective achievment, participants' ratings of the various learning activities, and methods of presentation, and of the technical aspects of the course. In addition to determining how learning and attitudes of the participants were affected and how the course might be improved, it was now possible to note the effect of the changes that had been made and to compare the results with previous deliveries of the courses.

In summary both DPRI and CEE broadcasts during 1977 were effective in achieving their cognitive objectives. The results were similar to those obtained following earlier deliveries of the courses and thus served to validate results obtained earlier.

Overall the rating of all aspects of both courses were above average. CEE received slightly higher ratings than previously, suggesting that the changes that had been made were effective. DPRI ratings were slightly lower than earlier deliveries and this was related to technical difficulties in the broadcasts. Cognitive achievement increased significiantly from pre- to post-test administration for both courses.

DPRI was again slightly revised and delivered for a fourth time in the fall of 1977. The results were reported in a 30-page section of Technical Report No. 21.

Achievement results were similar to previous broadcasts and showed a significant increase from pre- to post-test. Unlike earlier deliveries, however, attitude gains were also significant. The course received above average ratings in all aspects. The most frequent recommendations favored a slower presentation pace and the use of more experts on the panel discussions.

The final complete evaluation of DPRI occurred in the summer of 1978 when it was delivered for the fifth time. Although technical difficulties marred the reception in some areas, the achievement results and attitude growth were similar to those occurring in past deliveries. Participants again showed significant attitude and cognitive gain from pre- to post-testing indicating that the objectives for the course were achieved. The results were published in a 30-page section of Technical Report No. 26.

(2) Visual Learning

Technical Report 16 documents the delivery of a continuing education course entitled Visual Learning to 55 educators at ten sites in Appalachia in the spring of 1977. The course focused on assisting teachers to make more practical use of television in their classrooms, by providing a basic understanding of the proper use of equipment, knowledge of the availability of local and national programming resources, and an examination of attitudes and motivations concerning the use of television in the classroom. The five videotapes and printed guides to accompany each tape were produced by the New York State Education Department's Bureau of Educational Communication in cooperation with the New York State Appalachian BOCES Consortium, and funded by the Appalachian Regional Commission. AESP develped ancillary activities to accompany the tapes and booklets and produced two live seminars during the course delivery. Participants earned one hour credit for successfully completing the course.

The RCC Evaluation Component planned a formative evaluation study to implement the course. A set of objectives, content outlines, and list of ancillary material were developed which were reviewed by 25 media specialist and educators. Two evaluation instruments were used to obtain the reviewers' reactions: External Review of Objectives and Content Outline and Rating Scale for Ancillary Activities.

Since the video tapes and booklets had a fixed format and sequence, the ancillary activities were of most concern to the reviewers. They suggested on site discussion among participants, holding, debates using TV and film catalogues, writing lesson plans, having "hands-on" use of videocassette players, simulating a school board meeting, and watching and critique TV programs. Other recommendations were to provide more material including guides, catalogues, and reading selections. The suggestions growing out of the formative evaluation were incorporated in the course.

Seven different instruments were used to evaluate different aspects of the course. They were: Visual Learning Pre- and Post-test, Combined Attitude and Background Questionnare for Visual Learning, Attitude Questionnare (post-test), Instructional Activities Rating Form, Equipment Report, and Student Satisfaction Form.

A multivariate analysis of variance for pre- to post-test gains on the cognitive and attitude tests indicate site and site by administration differences for the cognitive test only. This means that some of the sites gained more than others on the cognitive test from the pre- to post-test administrations. The analyses also indicated that the participants made a significant gain on the cognitive test for pre- to post-test administrations. Therefore they learned the desired content.

The analyses, however, indicated that the participants' attitudes were negatively affected from pre- to post-test administrations of the attitude questionnaire. While the participants' reactions to the instructional activities were generally positive, one factor may have adversely affected their attitudes. Forty-six percent of the participants reported that they would be unable to use the information presented in the course. This may have caused them to express a more negative attitude toward the concepts presented in the course.

In conclusion, the participants were able to learn the cognitive content at a satisfactory level. They responded positively to the learning activities. The participants' attitudes were negatively affected, possibly because of their inability to apply the concepts in their classrooms. It was suggested that future AESP deliveries should strive to emphasize a broader applicability of course concepts, the identification of local resources to facilitate the application of course concepts, and a greater sensitivity to content designed to attain attitudinal objectives.

(3) Teaching the Young Handicapped Child

The passage of PL 94-142 in 1975, requiring public schools to respond to the needs of handicapped children, caused school systems to develop procedures for implementing the new law. Most teachers had but scant training or experience in dealing with such pupils. The need for inservice training of teachers, therefore, became more important than ever. Meeting these training needs was particularly difficult in Appalachia because of the rural nature of the region. Economic conditions hindered many school systems in providing cost-effective inservice training for the teachers. A satellite delivery system that could train large numbers of teachers in their home communities seemed to offer a most promising instructional strategy. Thus, AESP joined with Project PUSH (Parent Understanding Student Handicaps) of Keyser, West Virginia, to develop a course, "Teaching the Young Handicapped Child - an Overview (TYHC)" for delivery to the Appalachian sites.

The cooperative arrangement between Project PUSH and AESP represented a new venture - the incorporation of a resource center into the AESP management structure. The resource center was defined as the agency to develop the courseware or to modify existing courseware for delivery over the AESP system. The resource center acts as a content expert in the particular area of concern while AESP with its expertise in instructional design and satellite technology provides technical assistance in the development process. AESP then disseminates the product over the AESP system and evaluates the success of the product.

Technical Report No. 19 - A Formative Evaluation of Teaching the Young Handicapped Child - Fall 1977, therefore, documents the joint activities of AESP and Project PUSH in developing and delivering the course. It describes the course development process during 1976-77 and the first delivery of the course in the fall of 1977.

Teaching the Young Handicapped Child: an Overview is a survey course designed to instruct teachers of children 3-8 years of age on methods and techniques for working with handicapped children in the regular classroom. The course was intended to be practical in its orientation by demonstrating teaching techniques which are easily adapted in the classroom. Affective objectives of the course were concerned with changing teachers' attitudes towards handicapped children and developing procedures for working with them in the regular classroom. Specific areas of concentration included an overview of recent Federal mandates, assessment techniques, parent involvement, development of social skills, and language/speech development activities.

The course consisted of three basic components: Videotaped programs, live seminars, and printed ancillary materials.

The videotaped portions were film-video mix units and prepared media units. The film-video mix programs were original films, produced in cooperation with WWVV-TV of West Virginia University during the process of course development. These programs consist of segments filmed at selected mainstreaming programs in Appalachia and are interspersed with video narration by a host/instructor. The prepared media format centered around the introduction, viewing, and discussion of previously existing films. The film is introduced and discussed by a panel of content specialists.

The PUSH educational model which had been developed and tested in a demonstration project in West Virginia provided the foundation for the teaching techniques and activities taught in the course. This model is built upon the concept of an individualized program for each child. Children with handicaps are identified and assessed for their developmental level; behavioral objectives are then constructed and tasks analyzed for sequential learning. Active parent involvement is an integral part of the PUSH model.

It was agreed that the course should include a strong affective component directly addressing the attitudes of teachers toward handicapped children. This decision was based upon reviews of relevant literature indicating that teachers were fearful or uncertain of dealing with handicapped children in the regular classroom. Using filmed examples of teachers working with handicapped children and demonstrating that the needs of the handicapped are, in many ways, very similar to the needs of non-handicapped children was one method by which this issue was addressed.

These factors determined the basic units of the course. Objectives for each unit were then developed and a search was made for existing quality media which would meet the outlined objectives. The films were then used in preparing media units.

Two reviews were conducted during the course development. The first took place following the development of unit objectives and content outline for each unit; the second, upon completion of the scenarios for the videotapes and the outline of ancillary materials. A small group of external reviewers were experts in the subject field and directed their attention to the consistency and accuracy of content as well as effective methods of instruction. A second, larger group of external reviewers were selected by AESP site directors. These individuals consisted of members of state departments of education, regular classroom and special education teachers, administrators, and parents of handicapped children. These reviewers reacted to the course content in terms of the training needs of teachers in their region. This allowed course content to be shaped to meet the needs of various communities in Appalachia, while at the same time maintining control over quality of the content through feedback from content experts.

A total of 75 reviews were received for the first external review and 57 for the second. The suggestions made by the reviewers were used by the Project PUSH staff to revise the course content and activities.

In summary, the course development process consisted of selction of topics, development of instructional objectives, identification of existing media, completion of unit outlines and scenarios for filming, selection of sites for filming, completion of scripts and actual filming, and final development of ancillary print material.

The course was delivered in the fall of 1977 to 314 participants at 31 sites in Appalachia. The evaluation study revealed that the course had succeeded in its cognitive objectives of increasing participants' knowledge of techniques for working with handicapped children. Success in achieving its affective objectives were not demonstrated, however. The potential for change was minimized by the very positive entry attitudes of the participants. The affective instrument was, therefore, revised to measure finer discriminations in attitudes towards mainstreaming.

Participants' reactions to the course were generally positive. The videotaped portions of the course and the readings received the highest ratings. No significant difference was found between filmvideo mix and prepared media programs. This finding suggests that greater use of the prepared media format, a less costly procedures than filming on location, might be made when appropriate media can be located.

Based on the formative evaluation reported in Technical Report No. 19 and other feedback from the fall 1977 delivery of TYHC, the course was revised for delivery in the spring of 1978. It was viewed by 270 participants at 34 sites in Appalachia. Technical Report No. 24 describes the results of the summative evaluation of this delivery.

The evaluation was designed to investigate the efficacy of the course revision. Specifically, the evaluation addressed the following issues:

- Did the course participants demonstrate gains in performance on tests keyed to the course objectives?
- Did the attitudes of the participants toward handicapped children and mainstreaming in particular become more positive upon completion of the course?
- How did the participants react to the content and format of each session: What were the strengths and weaknesses of each session?
- How did specific components of the course compare to analogous activities in a traditional course?
- Did the technical aspects of the system funtion adequately in delivering the course?

- Did the implementation of the course proceed as planned?

It should be noted that questions such as these determined the scope of the AESP evaluation effort during the period 1976-78. This information was reported to project personnel and the content developers to remedy any problems and to determine changes and adjustments in program, management, and operational procedures.

Nine different instruments were used to evaluate different aspects of the course. They were all similar to the instruments described in earlier course evaluations.

Data from pre- and post-tests were analyzed to determine the amount participants had learned and the amount of attitude change experienced as a results of the course. The mean scores of the cognitive test increased from 45.16 to 70.85 from pre- to post-testing, indicating a considerable increase of knowledge of working with handicapped children and mainstreaming. A similar increase of mean scores from 3.16 to 3.02 also indicated positive changes in attitudes toward handicapped children.

The ratings of each of the course components were higher than comparable ratings received in the fall 1977 delivery. The improvements from the fall is greater for the practicum and the ancillary activities (readings, study guides, and group discussions) which indicated the revisions were successful. The course also appeared to be successful in presenting interesting ideas which could be practically applied in the classroom. The majority of participants (6%) planned to use the information contained in the course in their teaching. Seventy-eight percent of the participants indicated that the course presented many interesting ideas for practical application in the classroom.

(4.) Designing Success Strategies

In the fall of 1977 AESP delivered a three-hour credit graduate course entitled, "Designing Success Strategies," to 238 participants at 19 sites in Appalachia. The course, which was designed to acquaint teachers with the skills and techniques necessary to motivate students toward self-responsibility and success in school, consisted of 15 videotapes from three William Glasser series that were produced by Media Five and Associates, Hollywood, California. In addition four live seminars were produced and broadcast during the course delivery.

This course represented the first time AESP had adapted a program using videotapes from three different series — "Designing Success Strategies," "Options in Education," and "Values in Education." The outline for the course, objectives, and ancillary materials were developed by Dr. Gordon Liddle, the instructor for the course, The Resource Coordinating Center staff, and a group of seven elementary teachers from the Appalachian Region. Each videotape was supplemented by ancillary activities and outside reading.

Instruments similar to those used in past course evaluation were designed. The results also proved to be similar to recent course evaluations.

A multivariate analysis of variance for pre- to post-test gains on both cognitive and attitude tests shows a significant gain on both cognitive and attitudes measures, indicating that the knowledge and attitudinal objectives of the course were achieved. The participants' learning was positively affected as a result of participating in this course. All aspects of the course received above average rating. The course was documented in a section of Technical Report No. 21 Designing Success Strategy. It was revised as a result of the evaluation and was delivered a second time in the Spring of 1978. The changes that were made appear to have improved the course. The two video taped programs that were submitted at the second delivery received higher ratings then those used in the first delivery. One book which was used in the first delivery received low ratings and was replaced with Elliot Washington's book "Moments" and received very favorable ratings. The results of the spring 1978 delivery of DSS were very similar to the first delivery. They are documented in a section of Technical Report No. 22 -Summative Evaluation of Designing Success Strategies, Spring 1978, which suggests that this course be considered for future deliveries.

(5.) "Simple Gifts: Teaching the Gifted and Talented" is another example of using 12 videotaped programs of a series produced by the University of Wisconson's, Extension Programs in Education. These videotapes were supplemented with five films, a simulation exercise on identification of the gifted and talented, and four seminars. Ancillary activities to supplement the broadcasts were developed by AESP.

Three hundred fifty-five persons at 38 sites participated in this three-hour credit course offered for graduate or undergraduate credit. The course was designed to provide teachers with the information and skills necessary to plan and carry out strategies to meet the needs of gifted and talented students.

A section of Technical Report No. 22 documents the Summative Evaluation of Simple Gifts, Spring 1978.

A multivariate analysis of variance for pre- to post-test gains on both the cognitive and attitude tests revealed a significant change on both measures, indicating that the objectives for the course were achieved, the participants' knowledge increased, and attitudes improved. Technical difficulties with reception from ATS-6 transmission, however, were beginning to increase.

Based on the evaluations made during and following the spring of 1978 delivery, revisions were made in content and format and the courses re-offered in the summer of 1978.

One hundred fifty-two persons at 23 sites participated in the second delivery of Simple Gifts. This time the course received more positive ratings than it had for the spring 1978 delivery. The differential ratings were attributed to technical difficulaties during the spring delivery. The results of the summer 1978 presentation of Simple Gifts were published in a section of Technical Report No. 26.

(6.) Rehabilitation Nursing for the Older Client

In order to increase a nurse's ability to assess the needs of older persons with disabling conditions, required nursing assistance in rehabilitation, and to perform appropriate nursing action, AESP in conjunction with Wayne State University's Division of Instructional Services, the College of Lifelong Learning, and the DENT Project (Directions for Education in Nursing via Technology) developed a course to meet these needs.

As section of Technical Report No. 26 documents the first delivery of the course, "Rehabilitative Nursing for the Older Client," to nursing personnel in Appalachia during the summer of 1978. The course looks at developmental process of aging with emphasis on sensitizing the nurse to aging and the aged.

Three hundred fifty participants at 27 sites participated in the course, which was offered for undergraduate credit or continuing education units. The course consisted of 15 videotaped programs, three live seminars, and ancillary activities associated with each session. Overall ratings of the participants ranged from "good" to "very good." A multivariate analysis revealed a significant increase in both cognitive knowledge and positive attitudes about rehabilitative nursing from the first to last class session. Revisions were recommended for several units in order to update the content of these programs.

The publication of the Technical Report series ceased in May 1979 and the evaluation function became more and more concerned with network efficiency and user satisfaction. Since the network courses now being used were already successful course in their own right, they had been thoroughly researched and validated. There was little need to repeat such investigations. What was now important was to adapt these courses to ACSN needs and to develop support materials for their effective use.

When the contract with the University of Kentucky was terminated in late 1980, ACSN established its own regional office in Lexington, Kentucky. The evaluation staff functioned as part of this office until September 1981 when further reorganization of staff assigned the evaluation function to marketing.

4. Evaluation Studies of User Assessment and Satisfaction

During its final phase as a component, the evaluation staff, operated as part of the University of Kentucky Program Operation Center 1979-80 and then as a part of the new ACSN Program Operation Center 1980-81.

Evaluation was concerned with many specific projects which were reported to ACSN personnel to assist in the developmment of programming, marketing, network operations and cost-effectiveness. Most of the studies can be classified under the following categories:

a. Evaluation of courses or workshops
b. Student profile studies
c. Surveys
d. Special reports
e. Collecting and analyzing background information

Examples of these types of studies follows:

a. Evaluation of courses and workshops

(1) Workshop - Summative Evaluation of Consumer Education in Appalachian Workshops - Spring 1980

The workshop was designed to reach three groups of professionals with the potential for affecting change in consumer awareness.

Human service personnel
Adult basic education teachers
Teachers of Grades K-12

The report presents a summative evaluation of the workshops and a discussion of the research issues which might be investigated in future deliveries of these workshops.

Three 90-minute workshops were produced at the University of Kentucky Television Studio and were delivered one per week beginning April 12, 1980. Each workshop consisted of a 30- to 45-minute videotaped program, a live interactive panel discussion, a packet of ancillary materials for each participant and classroom activities. The first session was entitled "The Consumer in America"; the second, "Consumer Behavior"; and the third, "Consumer Protection."

Participants were asked to complete five questionnaires - a presession survey, a post-session survey, and a questionnaire after each of the workshop sessions. The 15 cognitive items included in the pre-and post-tests were pilot tested on 25 education majors at the University of Kentucky and the items refined before they were included in the workshop questionnairies.

The live and off-air participants for participating ACSN sites are listed below:

Sessions	1	2	3
Live	10	9	8
Off-air	78	73	83
Total	88	82	91

The "live" participants were at two sites. The "off-air" participants viewed the programs on a tape delay basis at four sites in three states.

Participants reacted very favorably to the programs and materials. The average score for the cognitive pre-test was 8.65 and for the post-test 9.48. More than 93% of the participants strongly or moderately agreed at each session that the program had increased their awareness of the ways activities in the economic sphere affect their personal economic situation, of ways to gain satisfaction in the market place and of how to more effectively utilize the various avenues of consumer protection. Clearly, the cognitive test results and the participant's perception of their increased understanding led to two different conclusions — slight improvement on the one hand and substantial growth on the other. Apparently participants were applying a broader criteria in assessing the effectiveness of the workshops than those upon the cognitive test had been based. This caused the evaluators to suggest that, in the future, a close examination should be made of the relationship between learning as measured by pre- and post-test gains and the participants' perceptions of growth in understanding.

The evaluators further reported that they felt the results were both disappointing and encouraging — disappointing because there were so few participants, and encouraging because the course was so well received by those who did take part. If ACSN hopes to make a significant impact, its programs need to reach more of the target audiences. It was suggested that future deliveries of these workshops could help ACSN to more effectively reach a larger audience if information were collected to answer such questions as: Who participates in the workshop? What are their reasons for doing so? How much do they already know about consumer education: Does it make a difference whether or not the workshops are conducted live?

(2) Workshop - "The Living Heart"

Dr. Michael DeBakey and Dr. Antonio Gotto, Jr., two internationally prominent heart specialists, worked with AESP in the spring of 1979 to develop and produce a workshop about cardiovascular disease. The workshop served as an update for physicians, nurses, and others interested in this medical problem. This report, dated July 17, 1979, describes and evaluates the presentation.

The first half of the 90-minute workshop which was broadcast April 3, 1979 was pre-taped in Houston with Dr. DeBakey, president of the Baylor College of Medicine; and Dr. Gotto, Jr., physician-in-chief of the internal medicine services at Houston Methodist Hospital. Mr. Todd Porter of AESP moderated their discussion by asking specific questions about the courses, and the treatment and prevention of cardiovascular disease. The discussion covered the diagnosis and treatment of arteriosclerosis and atherosclerosis, which are the underlying processes behind most cardiovascular disease. Dr. DeBakey and Dr. Gotto discussed medical tests that can be used to determine if a patient is a risk for developing cardiovascular disease and gave examples of health habits that are important for a healthy heart.

During the second half of the program, participants were given an opportunity to question the speakers. Questions were transmitted from AESP sites to the studio via telephone and/or teletype and as many as time permitted were answered during the live satellite broadcast. Evaluation of the workshop was based on participant responses to an evaluation questionnaire.

The workshop presentation was viewed by 1,090 persons at 36 AESP sites. Completed evaluation questionaires were received from 819 participants (75%). Medical doctors made up 9% of the audience; registered nurses (RNs), 50%; and licensed practical nurses (LPNs), 9%.

Most participants were pleased with the kind of information provided(83%) and the way in which it was presented (92%). They also indicated they felt they now had a better understanding of the medical issues involved.

Cognitive measures of the objectives were not included in the design, but participants were asked how much of the information presented was already familiar to them. Twenty-two percent indicated that 25% of the information was already familiar; 33% indicated 50%; 35 indicated 75%; and 5% indicated

100%. Four percent did not respond. These results suggest that the scope of this introductory workshop was quite appropriate for such a diverse medical audience. The comments and ratings of the various participants did, however, suggest that future medical workshops might need to more explicitly address the issues of information level and the audience for whom the information would be most relevant.

Participants were also asked questions to determine their interest in future programs. The ratings suggest there is high interest in:

Diagnosis of cardiovascular diseases
Drug interactions
New drug treatments for high blood pressure
Cancer screening - latest techniques
Food and drug interactions

Evaluation reports were also prepared for ASCD personnel of such courses as:

Strategies in Reading
    First delivery, Fall of 1978
    Second delivery, Fall of 1980
Coping with Kids
    Fall 1978
The Other School System
    Fall 1978

and for special seminars such as:

Seminars on Fiscal Conservation and Budget Development
April 13, 1978

The evaluation results of such courses and seminars were all similar to the reports already described.

b. Student Profile Studies

Profiles of the students participating in the ACSN courses had always been a part of the evaluation design. The need for this information grew in importance when ACSN programming directly entered the home, because it was a clue to marketing, recruitment, and future program developments.

Two separate reports on student profiles were made in 1980 and 1981. They are examples of the new emphasis in evaluation and they are compiled primarily as a report to marketing.

In 1980 most of the participants in ACSN undergraduate level telecourses were women (66%) representing predominantly two age groups: 25 or under (42%), and 26-35 (37%). They resided in rural communities (64%) and usually did not have chldren (54%). Generally, participants viewed the course programs at home via television broadcasting (54%) or in a classroom on a delayed basis via videotapes (42%).

A substantial number of participants (34%) indicated that the distance to the local credit granting institution was over 20 miles.

Most participants indicated that they had either attended college prior to this course and not received a degree (29%) or had already obtained a four-year college degree (36%). Generally, participants had attended other formal schooling within the last year (60%), but for the majority (79%) this was their first television course. Some participants (31%) were enrolled in a college full-time and others (32%) part-time. The majority (63%) were employed full-time in positions they described as professional (58%). The primary reasons which participants gave for participating in the course were:

A general interest in the subject (25%)
Course work needed for their degree (24%)
To upgrade employment skills

The results reported in the profile survey of 1980 were based on 284 persons who completed background questionnaires in spring, summer, and fall 1980 course offerings.

Data from previous research studies done in various parts of the country provided ACSN with a fairly consistent profile of students who have generally enrolled in telecourses (Coast, UMA, Dallas, Miami-Dade, Chicago City College, Southern California Consortium for Community College Television). These students were usually female and older than students enrolled in traditional course offerings. They are often married and many have children. These students have had a significant amount of college training and most are interested in earning an undergraduate college degree. Generally they are also employed. They enroll mainly for reasons of convenience although many also indicate that they enroll for personal enrichment.

ACSN students (Dallas and Coast telecourses) differed from the above pattern in that many (41%) were not older than the traditional student and they usually did not have children (54%). It is interesting to note that the ACSN participants cite upgrading employment skills as one of their primary reasons for course enrollment.

ACSN saw the importance of examining student characteristics in order to more carefully target its market efforts for individual courses. It also sensed the opportunity of serving in growing numbers the non-traditional student, especially those who could not readily attend a college class.

c. Surveys

(1) Previews of a proposed course (1978)

Twenty-one persons at six AESP sites previewed the videotapes for a course entitled "Keep It Running: Auto Repairs for Dummies." Eighteen of the reviewers represented the field of education of which seven were employed as auto mechanics instructors.

Eighteen out of twenty reviewers moderately or strongly agreed that there is a need for this type of program for high school students, women, and anyone not familiar with basic auto repair.

The majority of the reviewers felt that the program provided acceptable coverage of the topic (18 out of 21) and enough information and the practical application of the content (15 out of 21). The majority also agreed that the target group would understand the program. Several comments, however, indicated that the videotape covered too much material and that supplementary handouts, demonstrations, and "hands on" experiences should be added.

Reviewers were asked to indicate their opinions of the type of credit participants would most likely expect to receive if they successfully completed the course; how much per session they would pay; and how many sessions they would attend. Continuing education (CEU) credit was selected most often (12 of 17 reviewers). However, almost as many (11 of 17) felt the target group would attend for a certificate of attendance. Academic credit was selected by 5 of 17 persons. Most of the reviewers felt the target audience would pay $5 per session (13 of 18). The responses to the items asking opinions concerning the number of sessions the participants would attend ranged from 1 to 15 with 12 out of 17 reviewers selecting 5 or more sessions and 8 out of 17 suggesting 10 or more sessions.

These results are based on a somewhat limited sample of 21 reviewers. However, the ratings were highly positive. The majority of the viewers felt there is a need for this type of program. They felt that the videotapes were understandable but that they should be supplemented with additional demonstrations and activities. The program was considered practical for almost anyone who is not familiar with basic auto mechanics. Most of the reviewers who were not auto mechanics instructors were interested in attending the course if it were offered.

After studying the results of the review and viewing sample tapes, the program selection committee decided to include the course "Keep It Running: Auto Repair for Dummies," produced by Coast Community College, for the ACSN, fall 1979 program. The course was popular and successful and well received by viewers at ACSN sites and in viewer homes.

(2) Effectiveness of Recruitment Methods (1981)

A short study of the effectiveness of recruitment methods was made by the evaluation component in the summer of 1981 and made available to ACSN management, program development, and marketing. The information was broken down by graduate, undergraduate, and off-air (tape delay) course delivery.

Information from the graduate courses supplied by 234 participants indicated that they heard about a course from:

a friend - 36%
a flyer mailed to them - 23%
a flyer posted - 23%
newspaper - 11%
TV - 8%
radio - 7%
other - 11%

Undergraduate course information from 44 participants indicated that recruitment is most often accomplished (55%) by some other means than ACSN currently offers. In addition 18% learned of the course from a friend; 11% from mailed flyers; 9% from posted flyers; 2% from newspapers; and 1% from TV.

Off-air course information from 71 participants indicated they relied on newspapers (30%); radio (23%); friend (17%); mailed flyers (13%); posted flyers (7%); TV (6%); and other (6%).

This information was useful to ACSN personnel in planning the recruitment for future programming. The overall rating of 15% for recruitment based on other means than currently used by ACSN showed the great need for the development of new techniques.

(3) Home Viewers Interest Survey II - May 1981

During 1980 and 1981 the evaluators at the Program Operation Center were assigned to marketing and functioned as a marketing research staff.

In order to continue using local input in program development and network operations and to assess the educational service needs of local communities, surveys were developed and conducted to allow viewers of ACSN programming an opportunity to express their interests and concerns.

In May 1981 a mail survey was made of known home viewers of ACSN programming. The list of viewers was compiled from records of persons who had phoned or written ACSN for information from January 1981 through April 1981, and consisted of approximately 650 persons. A four-page questionnaire was constructed of items to assess who was watching, when and what they were watching, how they like the program, and what specific services and program topics they would like to see ACSN provide. A copy of the questionnaire is included in the Appendix.

Approximately two weeks later, follow-up letters were sent to those who had not responded. Completed questionnaires were received from 351 persons (54%) living in 34 or the 35 states in which ACSN had cable affiliates — a geographically representative sample of ACSN subscribers.

It is interesting to note that viewers were very receptive to this survey as evidenced by the following comments: "I thank you for this opportunity. You can have my opinion and suggestions anytime. You take the viewer into consideration, which isn't done by the three major networks," and, "Thanks for your questionnaire; NBC never sent one."

ACSN's surveyed viewers included both men (53%) and women (46%), mostly between 26 and 35 years of age (34.8%) with an average income of $20,000. A majority of the women, representing 27.9% of the total viewers, worked outside the home.

Since many of the respondents had started college without completing a degree, it appears that a fairly large group of viewers could benefit from undergraduate credit. The preferred viewing days of those who were interested in credit were Saturday and Sunday. Early evening hours, 5-10 p.m., were consistently chosen as the best viewing time. The second choice was morning, 7-noon. The fact that 60% of the viewers working outside the home for at least part of the day or night and, therefore, had restricted viewing hours, suggests that ACSN should consider the future acquisition of early evening broadcast time for both weekdays and weekends.

The survey showed a pronounced interest in continuing education broadcasts, especially in professions that require or mandate further education and updating of content and techniques such as nursing and education.

The respondents were also asked to indicate their interest in community service programs by reviewing a list of 154 topics. A summary of the "top thirty" list suggests the direction ACSN viewers want programming to proceed. All the topics mentioned were grouped under general headings. Thirty percent of the most requested topics came from the area of Life and Health, while 23% were chosen from Science. The areas of Government, Older Citizens, and Programming for children did very poorly, none of which had even one topic requested by 30% of the respondents. The most requested community service program topics were:

Exercise - 49.9%

Gardening 48.7%

Biology - 45.9%

American History - 45.6%

Painting - 44.7%

Nutrition - 44.2%

ACSN was extremely well received by the 351 viewers responding to this survey; e.g., "ACSN is habit forming. For the first time in my life, I'm enjoying learning." These viewers indicated that ACSN programming benefits included education, cultural enrichment, and consumer self-help information. Assessing and responding to viewer needs is a fundamental part of attracting and retaining viewers.

Sensing that the Home Viewers Survey II Report would also provide valuable information for dealing with cable affiliates, it was suggested that this information be shared with them. It is important for cable operators to know that their subscribers like the programs that are being provided.

As a result of gathering, analyzing, and summarizing the data for the viewers survey the market research staff made the recommendation that a survey of viewers be conducted at least once during FY 82 with the following procedural changes:

- Select a stratified random sample of viewers from subscriber lists.
- Revise the quesionnaire by:
    - Providing definitions of types of program services

available through ACSN

- Ask more specific background information to determine the extent and permanence of employment and the time of day they work
- Update specific topics for community service programming
- Refine time of day/day of week items so that they more specifically describe when viewers prefer to watch ACSN programming.

(4) Other surveys made during 1979-81 were:

Community Interest Surveys to secure input concerning ACSN programming - cable operators and community leaders, February 1979.

Program Interests of Appalachian Farmers to assess the training interests and needs of the farmers in Appalachia - 60 persons from nine states, Summer 1979.

Site Surveys of Community Needs - Site directors of 31 ACSN sites, August 1979.

Institution Survey - to assist the ACSN staff in selecting institutions for association with ACSN, Fall 1980.

Cable Survey - develop an improved process for appraising the potential cable market, Fall 1980.

d. Special Reports

(1) Summary Report of Telephone Logs, October 1, 1979 to January 31, 1981

ACSN began in October 1979 documenting telephone calls received from viewers and others. This enabled the network to maintain an up-to-date mailing list of viewers, institutions, and local citizens who have used, were currently using, or may in the future use or offer credit for ACSN programming. In addition, the logs enabled ACSN to monitor general viewer response to network programming and to respond more quickly to requests for information, questions, suggestions, and complaints. By providing information concerning who calls, when, from where, and why, the logs assisted the overall marketing activities of the network.

The number of telephone logs included in this report was 303. A summary of the information called shows that the highest percentage of calls were received between 9 a.m. and noon (40%).

The calls were fairly evenly distributed throughout the year with the exception of increases in June and November. These calls dealt with the end of semesters, questions about grades, and schedule changes for the new semester.

Only one state, Kentucky, generated over 10% of the calls. The majority (71%) originated from states east of the Mississippi River.

The majority of the callers (52%) identified themselves as viewers. Sixteen percent of the callers identified themselves as students, cable systems, or institutions. The logs recorded that the reason for the call was generally something seen on the network, questions about the promotion spots, the ACSN Program Guide, advertisements in local newspapers, or a complaint, and other (53%). These "other" reasons included such things as requests for general information about the network, inquiries regarding procedures for becoming an affiliate, or a request to be placed on the mailing list.

The results demonstrate that accurate maintenance of telephone call data can provide local input which can be used to improve network operations, marketing, programming, and management.

(2) Marketing Research Study

In the spring of 1981 the marketing research section of ACSN was assigned the task of formulating a market strategy for the purpose of developing guidelines to facilitate the identification of cable systems, institutions of higher education, and communities offering the greatest potential for successful marketing endeavors to ACSN. A status report was, therefore, prepared to provide a summary of the pertinent information that had already been gathered, various analyses of the available data, and recommendations on the direction of marketing for the coming summer months.

The report summarized the student enrollment at affiliated institutions and non-affiliated institutions of higher education; provided a profile of affiliated and non-affiliated cable systems, and compared them with national cable data.

(3) Legal Issues in Eastern Coal Industry Evaluation - November 1980

This course was conducted jointly by ACSN and the American Law Institute - American Bar Association for attorneys and other involved with coal and environmental law. Although the course enrollment was very small (24 persons attended), ACSN decided such a course was providing an important service and made a regular evaluation because it expected it would increase ACSN's probability of success in future offerings intended to up-date professional know-how.

The concept of legal education on television was enthusiastically received by attorneys. The evaluation, however, points out that the factors which contributed to the low enrollment for this course must be addressed before future programs are broadcast. The report attempts to identify these factors and make recommendations about how to proceed in the future in serving attorneys.

(4) Other Special Reports made during 1979-81

(a) Summary of Recent Evaluation Activities Regarding Program

Selection, August 1979.

(b) Evaluation of a Workshop, Hazardous Materials —Emergency Management, August 1980.

This workshop was designed to provide firefighters, police, and emergency medical personnel with a better understanding of hazardous materials emergencies. Three hundred twenty-seven (327) persons registered for the course. Evaluation forms were received from 179 persons, 96% of whom believed that additional training would increase their effectiveness and enhance their professional image. All the information suggests that there is an active interest in education within this population.

(c) Implementing Promotion Strategies for a Targeted Professional Development Series, Summer 1981.

e. Collecting, analyzing and summarizing background information useful for ACSN program development, network operation, or management.

(1) Continuing Education

In 1979 the evaluation component began collecting continuing education information from state and national associations including state departments of education and state licensure boards. This information is necessary for accurately determining continuing education needs for potential ACSN target groups and was released in the form of status reports.

(a) Summary of State Support of Adult Education, September 1978

The report interprets a study conducted by the National Advisory Council on Adult Education and focuses on answers to such questions as — How do states support adult education? Are they related to levels of federal support since 1967? What are the financial resources available by states? The data for each state is summarized.

The survey showed that nine of the Appalachian States have specific state legislation for adult basic education. The remaining four states do not.

(b) Status Reports

- Continuing Education Requirements for Educational Personnel (by state), Spring 1979
- Law Enforcement Requirements (5 states only), March 1979
- Psychologists' Training Requirements (11 states), March 1979
- Firefighter Training Requirements (4 states), March 1979
- Dieticians' Training Requirements (American Dietetic Association), March 1979
- Government - Needs of Administrative Personnel, March 1979

- Rural Appalachian Women, March 1979

  Approximately twelve milion rural females live in Appalachia. Information about specific program areas which would be beneficial to these women was collected from the Council of Appalachian Women, the National Advisory Council on Women's Education Programs, and a literature review.

- Short summaries in trends in certification requirements were also prepared for:

  Nurses
  Physicians
  Pharmacists
  Lawyers
  Psychologists
  Rehabilitation Counselors
  Police
  Teachers

5. Evaluation Related Projects 1980-82

In the time period since ACSN has been an independent non-profit entity, the basic thrust of evaluation efforts have focused on viewer needs, program quality, and assessment of potential business areas for ACSN. The areas where such efforts have been carried out include:

a. ACSN Management

(1) Business Area Planning

An assessment was made of ACSN program resources, market information, and what appeared to be the most promising business areas in which to focus ACSN management (see Section 10 - ACSN 1982).

(2) Planning and Evaluation

As the ACSN operating organization grew from the inception of ACSN in October 1980, an effort was carried out to establish an on-going planning and evaluation component. This component, located in the Office of the President, has developed a process in which the operating divisions of ACSN participate in establishing budgets and various performance measures related to the budgets. As actual operating results are obtained, a periodic assessment is made and feedback regarding variances and goals is returned to the divisions.

b. Marketing

(1) Viewer/User Program Requirements

During 1982 a specific planning and research effort was carried out to define (1) specific components of the ACSN audience (see Marketing Section - 7) and (2) the types of programs appropriate for these segments. This effort involved substantial evaluation of viewer comments, literature survey, and cable operator survey.

(2) Program/Print Evaluation

In order to organize and develop appropriate packages of video and print materials for the audience categories above, an on-going evaluation of available print packages has been underway for most of 1982. This effort has the objective of developing a program schedule where each hour has (1) the maximum revenue potential possible, and (2) meets the needs of ACSN viewers.

(2) Schedule/Time of Day Evaluation

In addition to defining audience segments and obtaining appropriate video/print packages for those segments, a specific effort was carried out to determine the best time of day for program segments to be viewed by the specific audience groups.

c. Programming

(1) Individual Program Assessments

After the delivery of a completely new program series, live conference, or new program segment, an evaluation is carried out by ACSN staff of (1) the appropriateness for the audience, (2) the audience reaction, and (3) whether the program should be continued or repeated.

(2) Technical Quality Assessment

All programs considered for inclusion in the ACSN program schedule undergo a standard assessment of:

- video quality ("breakup", et. al.)
- audio quality

- tape age/storability

d. Network Operations

(1) Signal Quality Assessment

Because the ACSN transmission engineers are the final group to view the ACSN program signal prior to uplink to the satellite transponder, they maintain a continuous viewing and technical evaluation of the signal. At this stage of delivery the main criteria involve signal "break up," lack of vertical/horizontal hold, lack of audio, or other readily apparent characteristics.

The discussion of Evaluation and Research in the preceeding pages has shown that this function was indeed an integral part of the AESP/ACSN total program.

It was seriously undertaken, carefully planned practical and adequate. It served to validate; more importantly, it provided a sound basis for decision making, progam selection, financial stability and network operations.

ACSN can document its growth and achievements with the data, gathered, analyzed and reported by its evaluation and research personnel.

E. ACSN Organization Design

The ACSN organizational design grew out of the experiences of initiating, operating and expanding the AESP experiment. Nevertheless ACSN was not AESP and although it resembled it in many ways, its differences were both subtle and substantial.

AESP was not an independent organization, free to operate under its own mandate, but was an operational service of the Education Division of the Appalachian Regional Commission (ARC). Its structure, policies, procedures, and activities were subject to the overall control and supervision of the ARC and to the conditions spelled out between the ARC and the NIE, and of NASA. Financial obligations were incurred by AESP in keeping with policy but payments were administered and accounted for by the ARC finance division. Dr. Harold E. Morse, the director of the project (AESP), also served as the director of the ARC Education Division. Actually, AESP had great freedom in developing its organization, policies, and procedures, and was given strong support by ARC at all times in its operations, but such an organization is somewhat different from that of an independent agency responsible for facing its destiny.

AESP started with the appointment by ARC of a project director with assistance from the staff of the Education Division. As the project plans developed, several full-time staff members were added and a project office was started. Project funds also financed the appointment of personnel to operate the receive sites in the selected Appalachian communities.

Because the project office staff was small in size, Dr. Morse immediately enlisted assistance from the educational service organizations sponsoring the community sites and from the newly appointed field staff, thereby initiating the practice of securing local input for decision making; for the development of policies, procedures, programming, and operations.

In the meantime the University of Kentucky was selected from among the institutions that had submitted proposal in response to an RFP, as the site of a Resource Coordinating Center where the AESP courses were developed and produced.

In addition, an engineering center was also established at the University of Kentucky to transmit the programming to the NASA ATS-6 uplink located in Rosman, North Carolina, and to coordinate the installation of equipment at community sites.

Under Dr. Morse's leadership, the basic AESP organizational design and the management practices were developed. The ingredients were ARC sponsorship; a central office staff housed at ARC headquarters in Washington, D.C.; field staffs located in the participating Appalachian communities, and the staffs of the coordinating services located at the University of Kentucky.

From the outset the organization designed for AESP paralleled the model of a private corporation entity and has maintained this basic form through all the changes that have occurred. In summary, the organizational design included the following features:

1. An executive director, a deputy executive director, and a central office staff provided direction, management, and coordination.

2. A field staff of local employees maintained a community presence, operated the receive sites, provided the AESP program offerings, enrolled

participants, conducted classes, and coordinated activities with local colleges and agencies. This required the appointment of a field staff of regional directors, site coordinators, and class monitors.

3. The establishment of local advisory groups insured local input into programming, policy making, and network operations.

4. A Resource Coordinating Center at the University of Kentucky developed and produced programming, ancillary material and resources; conducted course evaluation; and prepared the courses for delivery to the satellite uplink. This required a program development and production staff composed of educators, program specialists, research assistants, and broadcast personnel to develop specific programs for broadcasting and to provide course support materials.

5. A technical engineering service was established with responsiblity for caring for the network's technical equipment. This required training technicians to install and operate uplinks or other means of assessing the satellite; coordinating the installation of equipment at the community sites; advising and providing assistance to the sites concerning the maintenance and care of equipment; and in some cases providing for the replacement of non-functioning equipment.

These factors were expressed in a chart form that graphically showed the related parts of AESP. In 1976-77, therefore, AESP had the organizational design shown in Exhibit 4; the logo for AESP is shown in Exhibit 5. It provided the basic pattern that ACSN followed as adjustments and adaptations were made to all the new problems and opportunities it faced in 1980-82.

As prime contractor, fiscal agent, and manager, ARC developed the AESP general design as diagrammed in the above chart, and maintained a decentralized organizational structure. The AESP central office served as project manager, provided a broad range of expertise, resources, and maintained continual contacts at the local state and federal levels.

The delivery system was organized by grouping the 15 receive sites into five triangular networks composed of one main site and two ancillary sites. This design enabled a relay system to be operated between the ancillary units and the Resource Coordinating Center via the capabilities of the main site and also faclitated communication between the central office and the local sites.

Exhibit 6 illustrates a master control operator controlling the AESP program signal. AESP was managed and was functioning under this organizational plan on September 10, 1979, when ARC took the initial steps to change it to an independent non-profit corporation, governed not by ARC but its own Board of Directors; and because of its new potentials, renamed the Appalachian Community Service Network (ACSN).

Although the papers of incorporation and the new name and bylaws were not officially approved and recorded until the spring of 1980, the new name was already being used and for all intents and purposes was accepted and in use when testing on SATCOM I began on October 10, 1979.

It was, of course, necessary to modify the establisned organizational

EXHIBIT 4

AESP Organization

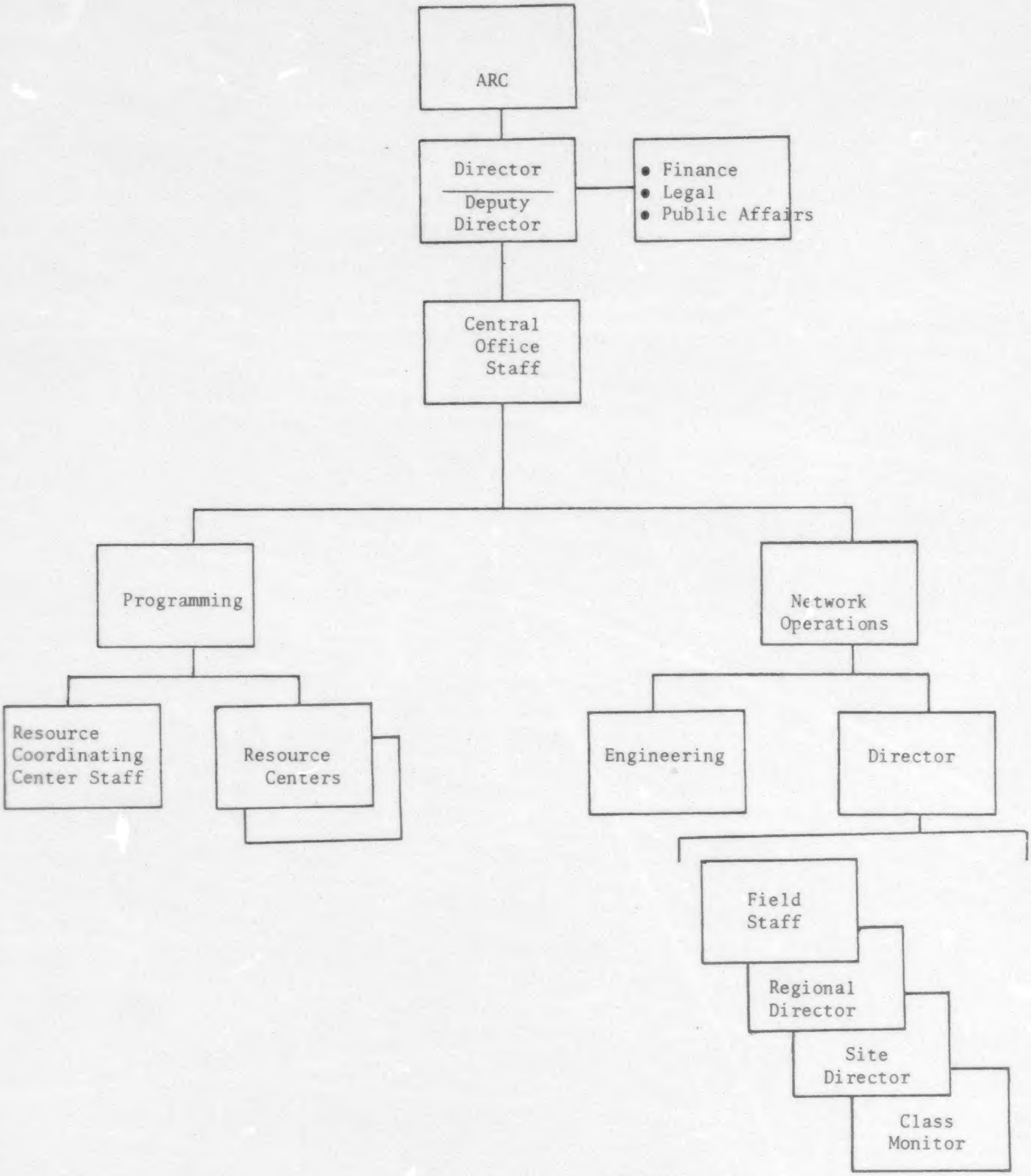

ARC
Director
Deputy Director
• Finance
• Legal
• Public Affairs
Central Office Staff
Programming
Network Operations
Resource Coordinating Center Staff
Resource Centers
Engineering
Director
Field Staff
Regional Director
Site Director
Class Monitor

EXHIBIT 5

aesp
appalachian
education
satellite
project

EXHIBIT 6

design to make changes in name, personnel positions, and the new conditions of operation.

The organization was no longer AESP, but ACSN — an entity in its own right, legally incorporated and registered with the details of corporate organization spelled out and recorded in its charter.

A set of bylaws guided the operation of the system. These bylaws outlined the objectives, membership, and the operational functions; specified the officials to be selected, and described their duties and responsibilities. The bylaws also listed the procedures for holding annual, regular, and special meetings of both the members and the directors. A copy of the bylaws is reproduced in the appendix.

Written job descriptions for ACSN personnel, their responsiblities and salaries were approved by the Board of Directors.

The chief administrator was given the title of President; the Deputy Director was renamed Vice-President (and subsequently, Executive Vice-President). The directors kept the same titles but the finance officer was designated as Secretary-Treasurer. Several new positions were added and work assignments were adjusted.

The first ACSN organizational chart differed only slightly from its AESP predecessor.

- Its own Board of Directors replaced the overall direction of ARC.
- President and Vice-President replaced the Executive and Deputy Directors.
- Local sites had local personnel but were organized with four regions with regional directors.

- A program operation center and an engineering center still functioned at the University of Kentucky.
- The central office was now called the corporate office.

An ACSN Board of Directors was appointed using the regulations prescribed in the bylaws and held its first meeting. Dr. Harold E. Morse, AESP's Execuitve Director, was formally elected ACSN President. The corporate bylaws were adopted as was the FY 1981 budget. The Board of Directors has met regularly since that date on a quarterly schedule.

The conditions under which ACSN now operated made it possible to follow may of the practices that had developed under AESP. But the changing conditions of operations also began to make themselves felt in meeting personnel needs, developing programming, marketing, and management practices. The new dimensions being added did not necessarily change purposes but certainly widened opportunities and altered procedures.

- The addition of cable TV systems to the ACSN proved to be an economical way of distributing the programming and brought opportunities to participate in expanding markets.

- The introduction of ACSN courses and programs directly into the home reduced the need for community viewing centers. The receive sites grew fewer and fewer in number and were finally eliminated entirely as a part of the ACSN network although some of these sites are sometimes independently operated by local institutions.

- The field staffs thus became smaller. This caused a realignment of personnel needs and of responsibilities in the corporate office, in the various communities and at the production development and the engineering centers. The responsibilities of Corporate office personnel who had been supervising local site staffs were revised to meet the demands of the expanding network.

In December of 1980 a significant change was made in the organizational design when ACSN placed program development functions directly under its control. This was accomplished by consolidating efforts then conducted under contract with the University of Kentucky and setting up a new Production Operations Center using ACSN employees. This consolidation strengthened management control and effected an annual savings of approximately $400,000.

In addition, ACSN contracted for the use of technical facilities at KET, Lexington to deliver its programming to the ACSN uplink because it required an environmentally controlled facility and technical expertise not yet available through ACSN equipment or personnel.

The staff of the Production Operation Center was further reduced in 1981 and some of its personnel concerned with program development, marketing, and evaluation were moved to the corporate office in Washington, D.C.

More and more ACSN personnel were gathered together in one place to develop and opeate the network.

Finally in 1982 the Production Operation Center in Lexington was closed and ACSN unified with a comprehensive corporate staff responsible for developing and carrying out its program.

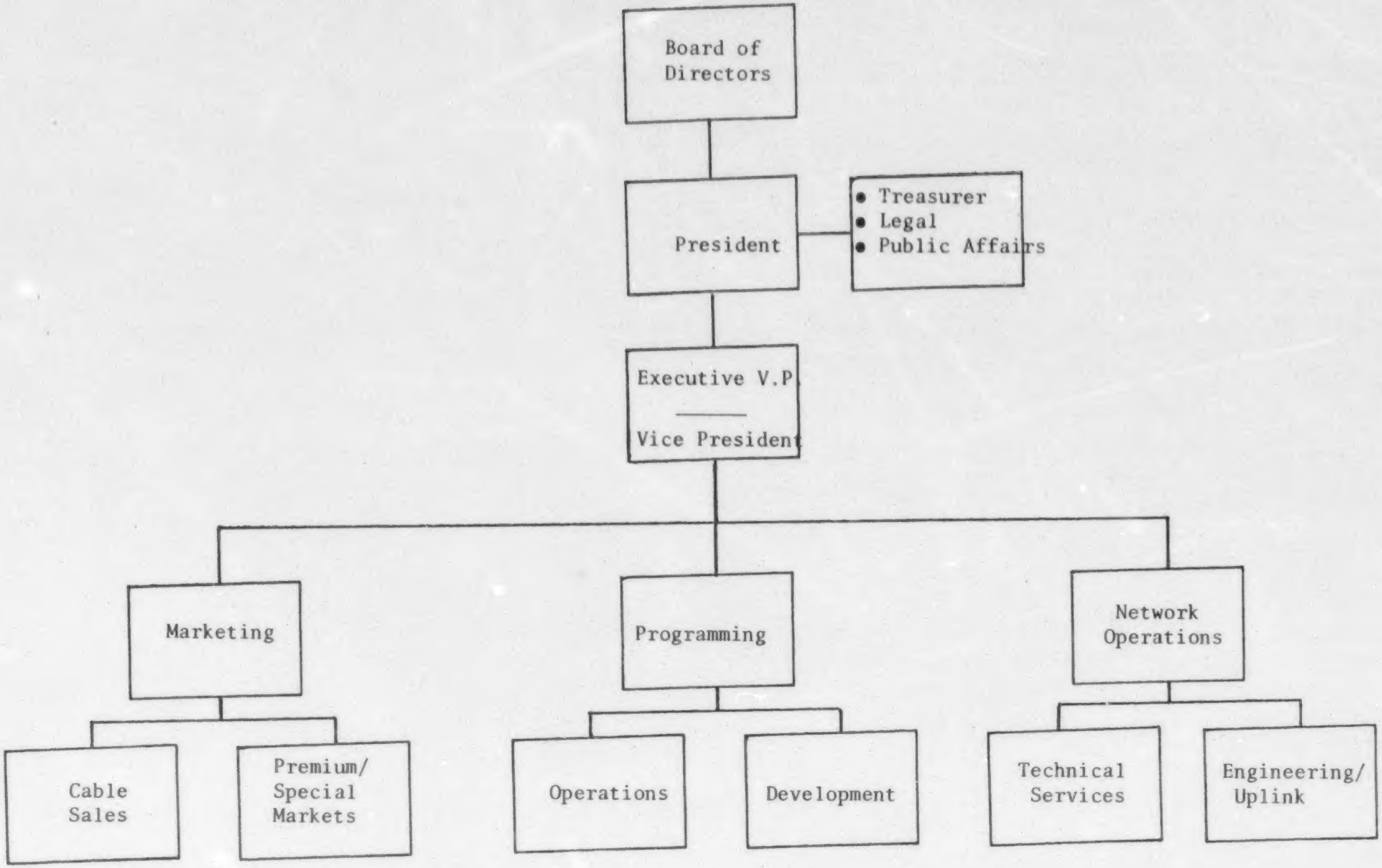
A diagram of ACSN organizational design at Exhibit 7 reflects the evolution that has occurred:

ACSN is now (June 1982) organized with

- A Board of Directors
- A President, Executive Vice President, Vice President - Operations, Secretary-Treasurer, and a corporate office staff located in Washington, D.C.
- An uplink at Lexington, Kentucky, operated by a small staff of technicians who also provide engineering services as needed by the network and who transmit the ACSN tapes and programs to SATCOM I Transponder 16
- ACSN is an independent, registered, non-profit corporation operating in the District of Columbia under its own bylaws.

The corporate office is the locale for carrying out advance planning, administration, evaluation, programming, marketing, contacts with cable TV systems, affiliations with colleges and agencies interested in program development or in general participation.

EXHIBIT 7


Board of Directors
President
• Treasurer
• Legal
• Public Affairs
Executive V.P.
Vice President
Marketing
Programming
Network Operations
Cable Sales
Premium/ Special Markets
Operations
Development
Technical Services
Engineering/ Uplink

F. Programming

As indicated in the marketing and operations sections of this report, ACSN has undergone significant changes in market focus and technical configuration during its transition from a federal experiment to a self-sustaining private entity. Though programming scope has evolved and broadened consistent with these other changes, ACSN's underlying commitment to public service remains unchanged. Originally charged with securing in-service programs for teachers at 15 viewing sites, the program division delivered up to 12.5 hours per week until 1979.

The first two courses developed by AESP were "Diagnostic and Prescriptive Reading Instruction" and "Career Education in the Elementary School." These topics were identified in a 1969 ARC survey as being those of greatest concern to Appalachian teachers. In later developing its courses AESP established general criteria that applied through much of the project's evolution.

For undergraduate courses,

(1) course must be a complete instructional package designed for use by faculty at a local college;

(2) course must meet undergraduate core curriculum requirements or be a widely used elective subject.

(3) must satisfy a generally accepted need

(4) video lessons must meet technical broadcast standards.

For graduate courses, specific criteria included,

(1) high quality video production;

(2) appropriateness for supplement with live seminars and print material;

(3) must satisfy generally accepted need.

Evaluation of these original offerings showed both that the programs were effective and that the medium had broader potential which led to an expansion in the number of sites (45 by 1978) and the number of courses. Diverse, community and professional interestes were identified and AESP undertook an extensive review of existing courseware to identify high quality programming to meet program needs. This activity represented AESP's first efforts as a distribution system for acquired programs from outside sources. In those areas where programming was not available AESP endeavored to develop special workshops for such needs. By October 1978 AESP had expanded its courseware coverage to include increase instruction for teachers as well as emergency medical care, fire prevention techniques, and small business management courses. A partial list of these selections follows:

- DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION - a graduate course to provide elementary school teachers with basic skills for planning a diagnostic approach to reading instruction.
- SIMPLE GIFTS: TEACHING THE GIFTED AND TALENTED - a graduate course for teachers and administrators which is an introduction to the education of gifted children.
- REHABILITATIVE NURSING FOR THE OLDER CLIENT - an undergraduate course for students and practitioners in the health care field who care for geriatric patients.
- DESIGNING SUCCESS STRATEGIES - a course for teachers (K-12), administrators and counselors to help develop ways for a more positive interaction with students.
- THE OTHER SCHOOL SYSTEM - a course for paraprofessionals and

volunteers who work with children.

- COPING WITH KIDS - a practical methods course for teachers (K-12), parents, and social workers on how to work more effectively with children.
- TEACHING THE YOUNG HANDICAPPED CHILD: AN OVERVIEW - a course aiding teachers of handicapped children in a regular classroom to plan for individual instruction and how to involve parents.
- COMMUNITY HEALTH PLANNING ADMINISTRATION - a course developed by the University of Cincinnati which is a two-year, non-residency Master's Degree program for professionals in health fields who wish to acquire an advanced degree while working.
- CAREER EDUCATION: IN THE ELEMENTARY SCHOOL - a graduate course for teachers, administrators and guidance personnel to help plan career education programs for their school systems.
- CAREER EDUCATION FOR JUNIOR AND SENIOR HIGH SCHOOLS
- VISUAL LEARNING: UTILIZATION OF INSTRUCTIONAL TELEVISION IN THE CLASSROOM - a one-hour graduate course.
- ENGINEERING ECONOMY - This course focuses on economic, evaluation and financial analysis of engineering alternatives in which the goal of economic efficiency is applied to engineering design.
- STRATEGIES IN READING - a graduate-level course for teachers (K-12) interested in helping students comprehend course-related textbooks and materials.
- HAZARDOUS MATERIALS SPILLS: EVACUATE OR ATTACK - This workshop instructed firefighters, policemen and emergency medical personnel how to recognize a dangerous situation, how to identify the

hazardous materials and the correct reaction to the emergency.

- SMALL FARM MARKETING - This workshop provided information and facts about direct marketing techniques, the effect of consumer demand, alternate markets, contractual agreements and local resources available to the farmer.
- DEVELOPING RAPE CRISIS CENTERS IN RURAL COMMUNITIES - This workshop included the presentations of Joseph and Judy Davenport describing a service delivery model they helped develop and implement in rural Mississippi.
- EMERGENCY VEHICLE RESCUE - This workshop dealt with the methods and equipment used to remove an accident victim from automobile or truck collisions.
- BUILDING YOUR OWN SUCCESSFUL BUSINESS - A three-part workshop sponsored by the Small Business Administration to help businessmen and women plan, start and maintain a profitable business.
- CARDOPULMONARY RESUSCITATION: PART I - A two-part demonstration workshop in which participants learned and practiced life-saving techniques, CPR.
- CARDIOPULMONARY RESUSCITATION: PART II - Hands-on practice using the techiques of CPR on manikins, including a test for certification.
- SURVIVE YOUR NEXT ALARM - This workshop focused on major factors involved in protecting a firefighter's life, including protective clothing, the proper use of breathing apparatus and the safe response to an alarm.
- THE LIVING HEART - The workshop dealt with the prevention of heart attack or heart disease. General practitioners, registered nurses and

others benefited from the discussion of the cardiovascular system and how to protect it by two internationally known heart specialists, Dr. Michael E. DeBakey and Dr. Antonio M. Gotto.

By October 1978, the AESP project had not only achieved its experimental objectives but had also demonstrated competence in the acquisition, scheduling and delivery of public service television programs. Market analysis indicated that the project could achieve self-sufficiency by utilizing the distribution potential of the rapidly growing cable television industry. In 1979, AESP became ACSN and initiated distribution via the RCA SATCOM I satellite. The implications of this transition for the program division were twofold: (1) expansion of program hours to 35 per week was necessary to justify carriage by most cable television systems; and (2) the exploration and addition of new program categories was necessary with the inclusion of the cable TV subscriber into ACSN's viewer group. With its first large-scale access to the home viewer ACSN had to develop many new program sources while increasing cost-effectiveness of delivery. Expensive program forms such as the workshop were used less frequently while programs serving similar needs yet targeted toward home viewers were included.

Today ACSN programs a full 64 hours of in-service, continuing education, personal enrichment and credit course programs for home viewers and professionals nationwide. The Summer 1982 program schedule and a summary of Fall 1982 program categories are shown at Exhibits 8 and 9.

As discussed in the marketing section, ACSN has now identified target user groups within its greatly expanded national audience. Programs for these

EXHIBIT 8

Appalachian Community Service Network

SUMMER (1982) SCHEDULE

ET	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
AM 6:00	Loosening the Grip #1 5/17 - 6/4 also 8/16 - 9/3	Loosening the Grip #2 5/17 - 6/4 also 8/16 - 9/3	Loosening the Grip Sem. #1 5/17 - 6/4 also 8/16 - 9/3	Loosening the Grip #3 5/17 - 6/4 also 8/16 - 9/3	Loosening the Grip #4 5/17 - 6/4 also 8/16 - 9/3	American Gov't I #1 6/12 - 8/14	American Gov't II #1 6/13 - 8/15
6:30	Seminar 5/31 & 8/30	Seminar 5/25 & 8/24	Seminar 5/19 & 8/18	Consultation #1 5/20 - 9/23	Seminar 6/4 & 9/3	American Gov't I #2 6/12 - 8/14	American Gov't II #2 6/13 - 8/15
7:00	Reading Comp. #1 6/21 - 7/2	Reading Comp. #2 6/21 - 7/2	Reading Comp. #3 6/21 - 7/2	Reading Comp. #4 6/21 - 7/2	Reading Comp. #5 6/21 - 7/2	American Gov't I #3 6/12 - 8/14	American Gov't II #3 6/13 - 8/15
7:30	Marketing Persp. #1 6/7 - 8/13	A Different Understanding #1 6/15 - 7/13	Marketing Persp. #2 6/7 - 8/13	Integration of Children with Special Needs	Marketing Persp. #3 6/7 - 8/13	Making It Count #1 6/19 - 8/7	Marketing Persp. #1 6/13 - 8/15
8:00	Making It Count #1 6/14 - 8/4	Speed Learning #1 6/22 - 8/17	Making It Count #2 6/14 - 8/4	The Heart of Teaching #1 Poetry Alive #1	Making It Count #3 6/14 - 8/4	Making It Count #2 6/19 - 8/7	Marketing Persp. #2 6/13 - 8/15
8:30	American Gov't I #1 6/7 - 8/13	Tomorrow's Families #1 6/8 - 9/16	American Gov't I #2 6/7 - 8/13	Tomorrow's Families #2 6/8 - 9/16	American Gov't I #3 6/7 - 8/13	Making It Count #3 6/19 - 8/7	Marketing Persp. #3 6/13 - 8/15
9:00	American Gov't II #1 6/7 - 8/13	Home Accessories #1 6/15 - 9/2	American Gov't II #2 6/7 - 8/13	Home Accessories #2 6/15 - 9/2	American Gov't II #3 6/7 - 8/13	Coping with Kids #1 6/19 - 8/7	Loosening the Grip #1 6/20 - 8/8
9:30	Voyage #1 6/7 - 8/13	Integration of Children with Special Needs	Voyage #2 6/7 - 8/13	The World in Your Kitchen #1	Voyage #3. 6/7 - 8/13	Coping with Kids #2 or Seminar 6/19 - 8/7	Loosening the Grip #2 or Seminar 6/20 - 8/8
10:00	Loosening the Grip #1 6/14 - 8/2	Simple Gifts #1 6/15 - 8/3	Loosening the Grip #2 6/14 - 8/2	Simple Gifts #2 6/15 - 8/3	Real Estate Action Line 5/21 - 9/24	Coping with Kids #2 or Seminar 7/10, 7/24	Loosening the Grip #2 or Seminar 6/27, 7/11, 7/25
10:30	Seminar 6/21, 7/5, 7/19 & 8/2 Reading Comp. 8/15 - 9/2	Seminar 6/29 & 8/3	Speed Learning #1 Reading Comp. 8/15 - 9/2	Seminar 7/22	A Different Understanding #1 Reading Comp. 8/15 - 9/2	Bluegrass Banjo Level One #1	Speed Learning #1 6/27 - 8/22
11:00	Coping with Kids #1 6/14 - 8/2	Bluegrass Banjo Level One #1 6/15 - 8/17	Coping with Kids #2 6/14 - 8/2	The Story of Radiation #1&#2 7/15 - 8/12	Integration of Children with Special Needs	Simple Gifts #1 6/19 - 8/7	Keep It Running #1 4/18 - 8/29
11:30	Seminar 7/5 & 8/2	A Better Way #1 7/20 - 12/28	Seminar 7/21	Advertising the Small Business #2 7/15 - 7/16	The Heart of Teaching #1 Poetry Alive #1	Simple Gifts #2 or Seminar 6/19 - 8/7	Case Studies in Small Business #1 6/20 - 7/18
PM 12:00	Simple Gifts #1 6/14 - 8/2	Loosening the Grip #1 6/15 - 8/3	Simple Gifts #2 6/14 - 8/2	Loosening the Grip #2 6/15 - 8/3	Cookin' Cajun #1 6/18 - 9/24	Simple Gifts #2 or Seminar 7/2, 7/24	Case Studies in Small Business #2 6/20 - 7/18
12:30	Seminar 6/28 & 8/2	Seminar 6/22, 7/6 & 20, 8/3	Seminar 7/21	Tomorrow's Families #2 6/7 - 9/15	Dimensions in Science #1 6/13 - 7/29	The World in Your Kitchen #1 7/10 - 8/28	Cookin' Cajun #1 6/20 - 9/26
1:00	Voyage #1 6/14 - 8/20	Coping with Kids #1 6/15 - 8/3	Voyage #2 6/14 - 8/20	Coping with Kids #2 6/15 - 8/3	Voyage #3 6/14 - 8/20		
1:30	Making It Count #1 6/21 - 8/11	Seminar 7/6 & 8/3	Making It Count #2 6/21 - 8/11	Seminar 7/22	Making It Count #3 6/21 - 8/11		
2:00	American Gov't I #1 6/14 - 8/20	Real Estate Action Line 5/18 - 9/21	American Gov't I #2 6/14 - 8/20	Fast Forward #1 6/13 - 8/26	American Gov't I #3 6/14 - 8/20		
2:30	Marketing Persp. #1 6/14 - 8/20	Modern Supv. Techniques #1 5/25 - 6/10	Marketing Persp. #2 6/14 - 8/20	Modern Supv. Techniques #2 5/25 - 6/10	Marketing Persp. #3 6/14 - 8/20		
3:00	American Gov't II #1 6/14 - 8/20	Cookin' Cajun #1 6/15 - 9/21	American Gov't II #2 6/14 - 8/20	A Better Way #1 7/22 - 12/30	American Gov't II #3 6/14 - 8/20		
3:30	Reading Comp. #1 6/21 - 7/2	Reading Comp. #2 6/21 - 7/2	Reading Comp. #3 6/21 - 7/2	Reading Comp. #4 6/21 - 7/2	Reading Comp. #5 6/21 - 7/2		

ACSN HIGHLIGHTS

FLEXIBLE READING
M/W 10:30-11:00 am,5/21-6/16
Sun 10:00-11:00 am,5/30-6/20

Learn how to increase your concentration and efficiency when reading textbooks, reports, articles and other "real world" reading materials.

REAL ESTATE ACTION LINE
T 2:00- 2:30 pm,5/18-9/2
F 10:00-10:30 am,5/21-9/24

Explore the multi-faceted world of the Real Estate Industry with real estate consultant, H.I. "Sonny" Bloch. Marketing conditions and trends in financing are among the topics discussed.

COOKIN' CAJUN
T 3:00-3:30 pm,6/15-9/21
Sun 12:30-1:00 pm,6/20-9/26

Louisiana's gourmet-humorist, Justin Wilson, shows practical methods of cooking famous Cajun recipes. Learn to make things like bar-b-que beans and quail in a bag.

ACSN DAILY PROGRAM SEGMENTS/AUDIENCES

Program Segment	Time Segment	Audience	Program Examples
(1) College Credit Telecourses	6-8 am (+ weekend mornings)	-Adult learner seeking to enhance or complete his education	• Introductory Biology • American Government • Computer Basics
(2) Continuing Education for Business/Industry	8-9 am	-For the professional interested in work-related programs (on or off-site)	• Prof. Engineering Exam Prep • Advertising Principles • Supervisory Techniques
(3) Personal Enrichment	9-10:30 am 1:30-3 pm	-Directed to at-home and retired audience with leisure time/how-to programs	• Bluegrass Banjo • Burglar Proofing Your Home • Keep Your Car Running
(4) Career Transition	10:30-11:30 am	- Oriented towards the unemployed, persons making midlife career changes	• How to Look For A Job • Women In The Workforce
(5) At Home/At Work	11:30-1:30 pm	- General audience seeking informational/continuing education programs	• Speed Learning • Personal Time Management
(6) Teacher In-Service	3-4 pm	- Designed to reach teachers at school or at home near end of the work day	• Teaching Handicapped Children • How To Teach Computers • Memory Training

EXHIBIT 9

groups, like the first AESP programs, address the specific interests of a professional or viewer group. ACSN has effectively reconciled its mandate to serve such groups with its status as a national network within a highly competitive cable television industry. In fact, the ACSN national schedule is unique within the entire television industry, cable and broadcast, in its commitment to learning goals.

As it exists today, the program division, responsible for developing and implementing this national schedule, has three branches: program operations, program acquisition, and program development. The functions of these branches are as follows:

1. Program Acquisition Branch

Due to the greatly expanded hours ACSN relies heavily on programming that has already been produced, and is being made available for lease by various distributors. In the AESP days ACSN developed its own programs at the RCC in Kentucky, but the volume of today's program load precludes such activity. (Like most broadcast and cable networks, ACSN acquires most of its programming from others, rather than producing its own original programming. At ACSN this figure is 95-98%.)

This functional responsibility requires the staff to have an almost encyclopaedic knowledge of the distributors in the business and what kinds of progamming they have available. It also requires them to search for programming from new and different sources so ACSN does not have to rely on a narrow group of producers and distributors. An example of this new direction is the acquisition of MAKING IT COUNT — an introductory computer course — from an industrial firm, Boeing Computer Co.

The Program Acquisition staff handles preliminary negotiations with the distributors and prepares contracts for concurrence of the managers and signature by the President.

Once a program or series of programs is under contract, the Program Acquisition staff proceeds with placement in the network schedule. Scheduling is done approximately six to ten months in advance of play dates in order to accomodate early deadlines for college and university schedule catalogues, ACSN generated publicity projects, and periodicals publishing program listings (TV Guide, Satguide, etc.).

Generally speaking, the Program Acquisition staff is charged with the previewing, acquisition recommendations, contract negotiations, and scheduling of the programming for the network.

2. Program Development Branch

This unit within the program Division is responsible for developing the limited amount of original programming that ACSN does produce and for which it holds the rights. While producing original programming is expensive and very time-consuming, an effort in this area is important for several reasons:

- it allows ACSN to provide certain special emphases in programming (e.g., Appalachian focus);
- when a business area has been identified for which little pre-produced programming exists, it may well be cost-effective for ACSN to produce its own;

- it allows ACSN to become somewhat independent of the traditional distributors and — using the asset represented by oroginal programming — turn around and lease it to others ("syndication"), thus creating a new revenue source for the company.

The program development process includes all activities from the early conceptual stage through the point that the program/series reaches pre-production planning. One of the most important elements is identifying and working with an appropriate "content expert" — who can bring the substantive knowledge to the development of the project, whether it be health, education or Appalachian folk tales. An equally important task is the identification and solicitation of funding sources, because ACSN as a non-profit, non-commercial television network does not have extensive development funds to undertake such projects on a speculative basis.

Pictures showing the format of two live teleconferences delivered in 1981, "Using Telecommunications to Address State and Local Issues," and "Teenage Drug Abuse," are shown at Exhibits 10 and 11.

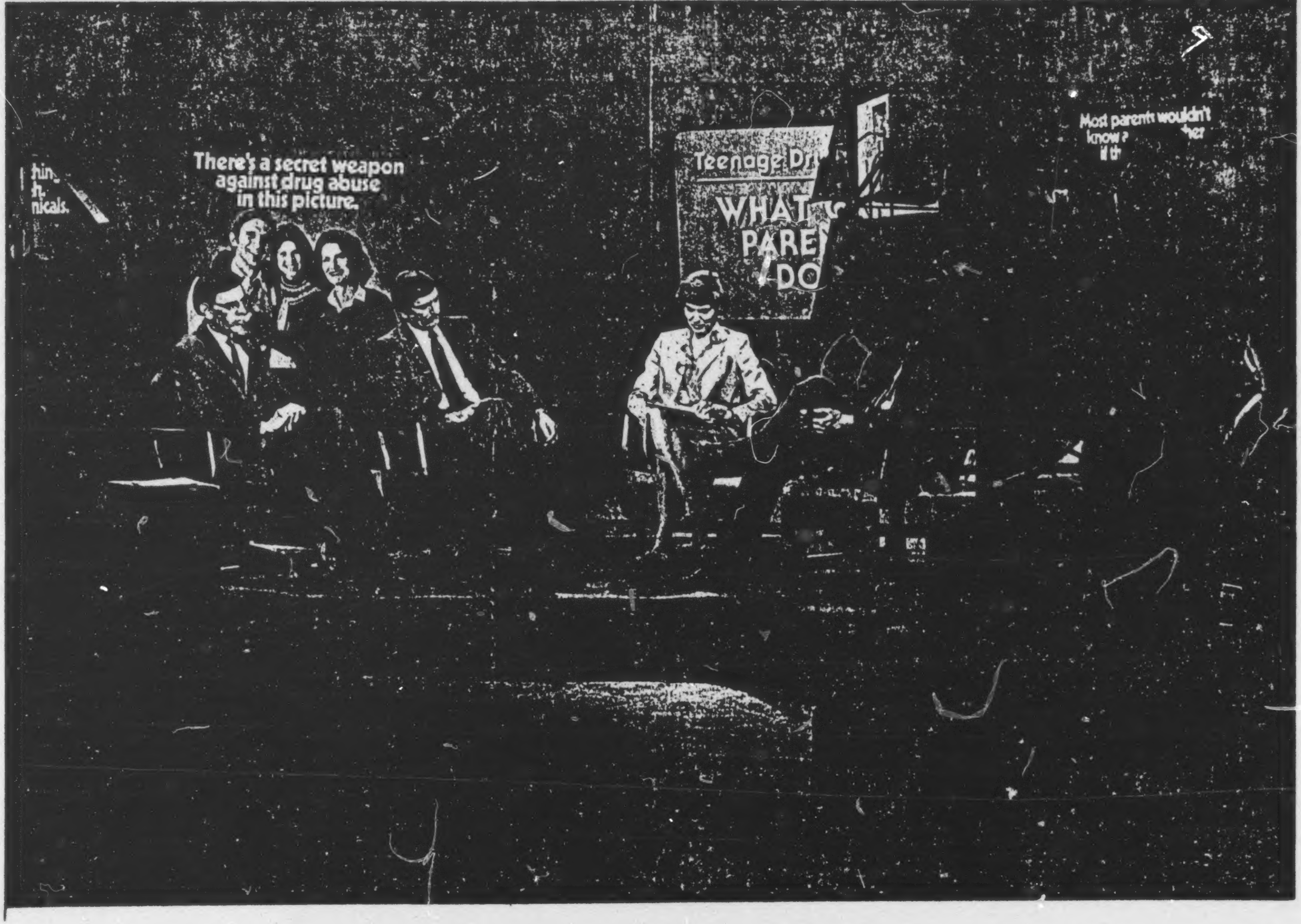
The Program Development staff is located at corporate headquarters in Washington.

3. Program Operations Branch

Once the lease rights to acquired programming are under contract, there are literally hundreds of details included in managing the process of "delivering" each day's programs to the Network Operations people who

EXHIBIT 10

EXHIBIT 11


hing
h.
nicals.
There's a secret weapon
against drug abuse
in this picture.
Teenage Dr
WHAT
PARE
DO
Most parents wouldn't
know
ther
if th

operate Master Control. This process is handled by the Program Operations staff, located in Lexington, Kentucky. (The physical "things" provided to Master Control engineers each day are approximately 20 half-hour programs on "quad" tape; 20 90-second breaks on cassette tape; and the daily program log that represents the second-by-second schedule of when each item should be aired.)

Specifically, this functional area is responsible for:

- receiving, cataloging, librarying and eventually shipping about 2000 quad tapes each year making sure the correct episode of each series is moved from the Library to Master Control each day;
- traffic and continuity, which include building the daily logs two-to-three weeks in advance;
- producing approximately 20 90-second breaks each day. Each break contains 3 to 4 elements (e.g., animated logo, Network I.D., promotional announcements, public service announcements).

In addition the supervisor of Program Operations spends 25 percent of his time serving as an Account Executive for Network Operations in developing revenue from post-production work (i.e., leasing out ACSN's Master Control facilities during off-hours).

ACSN's transition from a localized experiment to a national programming entity has necessitated greater centralization of the programming process. This process is depicted in the accompanying chart at Exhibit 12. Program needs today are not determined by individual review groups at local sites as

( ) ACSN Organization Element

* Development Activity

ACSN OVERALL PROGRAM DEVELOPMENT WORKFLOW

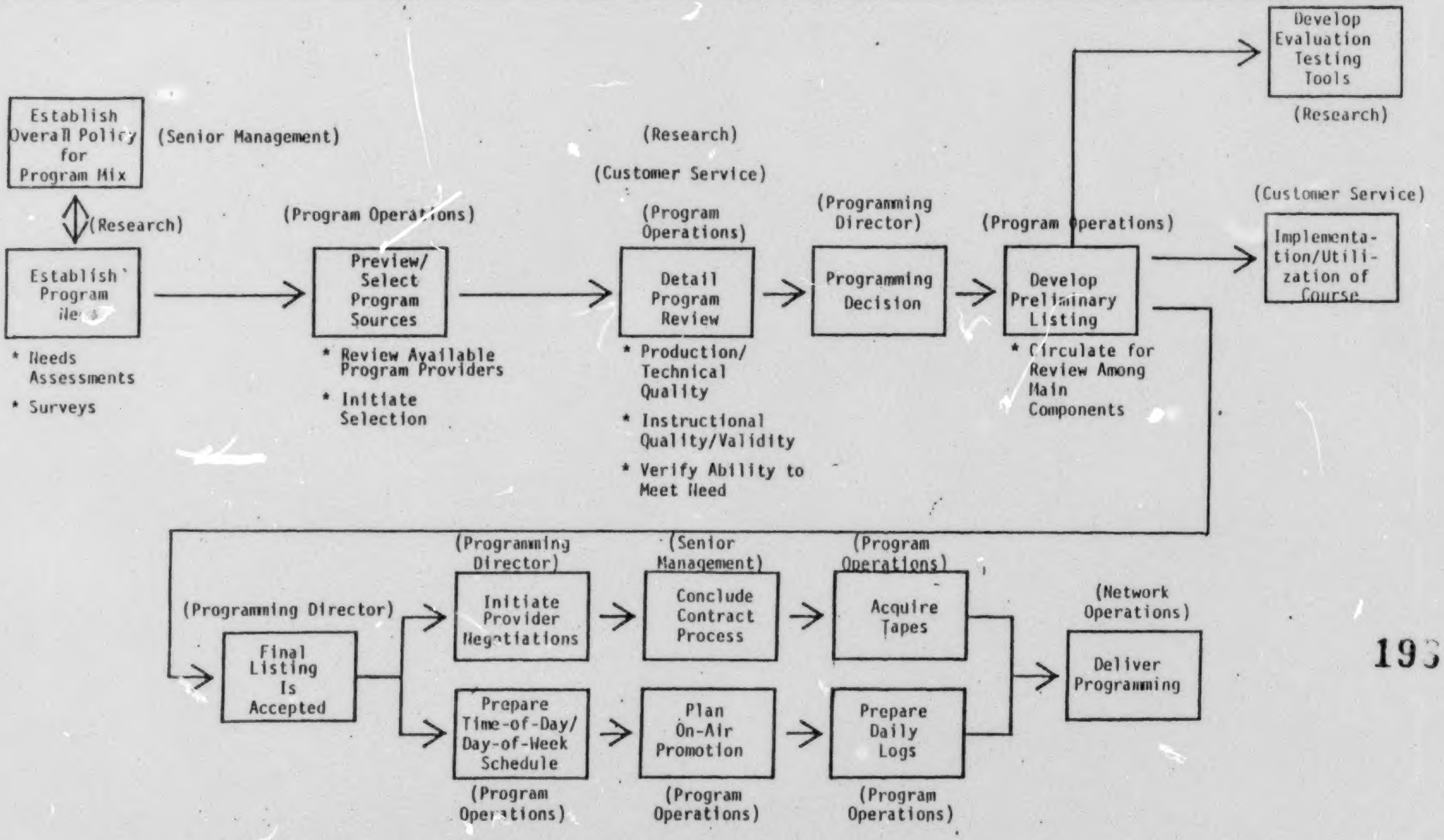

Establish Overall Policy for Program Mix
(Senior Management)
(Research)
Establish Program Needs
* Needs Assessments
* Surveys
(Program Operations)
Preview/ Select Program Sources
* Review Available Program Providers
* Initiate Selection
(Research)
(Customer Service)
(Program Operations)
Detail Program Review
* Production/ Technical Quality
* Instructional Quality/Validity
* Verify Ability to Meet Need
(Programming Director)
Programming Decision
(Program Operations)
Develop Preliminary Listing
* Circulate for Review Among Main Components
Develop Evaluation Testing Tools
(Research)
(Customer Service)
Implementation/Utilization of Course
(Programming Director)
Final Listing Is Accepted
(Programming Director)
Initiate Provider Negotiations
(Senior Management)
Conclude Contract Process
(Program Operations)
Acquire Tapes
Prepare Time-of-Day/ Day-of-Week Schedule
(Program Operations)
Plan On-Air Promotion
(Program Operations)
Prepare Daily Logs
(Program Operations)
(Network Operations)
Deliver Programming

EXHIBIT 12

they were in the AESP days; now the process of needs assessment has of necessity been streamlined and today involves original audience research augmented by a review of published research and extensive discussion with representatives of target user groups. Although many of these activities are undertaken by the marketing division, constant communication between marketing and programming is maintained to assure the development of a timely, relevant national schedule. From start to finish, the process described in the flowchart takes 12-18 months for any given season.

G. Marketing

When ACSN started its move from a government sponsored education experiement in the Appalachian Region toward a self-sustaining telecommunications network operated as a non-profit private entity, it was essential that it become and remain competitively viable. One of its most crucial needs was a sound and effective market approach.

From the beginning of the demonstration phase of AESP in 1977, market practices were developed and used by network management, but there was no unified marketing plan under the leadership of a director of marketing or a marketing division. Rather, informal procedures were followed and marketing responsibilities shared between central project office management, Resource Coordinating Center (RCC) personnel and field personnel at the various local sites, all working as time permitted as sales representatives.

With an experimental mission, much of the focus of the organization activity was on research and evaluation. Although the meeting of the needs of the people it was mandated to serve was always uppermost in the minds of the AESP staff, the needs which were studied were defined in a more subtle manner than they would have been in a comprehensive marketing plan. In fact, one part of the project's mission was to identify needs that were so discrete and so isolated that private enterprise was not likely to take the risk of the experimentation.

The foundation of the marketing approach in the AESP model was based on the identified single, narrow target audience — teachers in rural Appalachia. Once identified, determination of programming strategies to serve this single audience was based on the highly reputable needs assessments conferences conducted with the assistance of the University of Kentucky for AESP in 1976. The emphasis was on providing post-graduate training to this group of teachers on topics that they themselves, individually and personally, had selected.

With the primary program determinations made and a network of locations for receipt of the programming (as delivered by the satellite) in place, the aggregation of people around the receive locations and the support of local institutions and agencies were all that remained to create a worthwhile environment for the delivery of the promised services. ACSN's resources then went into the servicing of the clients and the evaluation of its efforts.

Marketing during 1977-79 was, therefore, a responsibility at different times of the year with different groups of AESP management control, personnel of the various AESP components, and local site directors. The marketing function was primarily concerned with advertising courses and workships, promoting enrollments, fostering the use of AESP programming by off-air delivery (tape delay), handling the technical aspects of duplicating and distributing tapes of courses as needed for such programming, and the sale or rental of tapes of the AESP courses and workshops to other educational institutions or agencies.

The challenges and advantages of experimentation with accountability measured in qualitative factors presented a beginning, but required the new independent corporation to translate the results into a broad, marketable service that no longer tested the efficiency and efficacy of the idea but rather applied the successes to an operating structure that could quickly achieve marketplace self-sufficiency.

When satellite time was secured on SATCOM I, the additional time available for the delivery of education programs through the already established network of receive sites led to ACSN's first major step in re-defining its target audiences.

The post-graduate training mission that had dominated programming decisions up to this time was still being well received but the communities in which ACSN was operating had many people who were at least equally unserved in educational opportunities as the teachers of the region. Some of the additional satellite distribution time could be used to provide a much broader educational service for all — not just a discrete segment of the population. Thus ACSN began to offer a service that went beyond post-graduate training for teachers by providing programming for general educational purposes. And, correspondingly, ACSN began to make its service available to cable systems.

Now the marketing challenge began in earnest and ACSN realized it was becoming an independent corporation with a background of more than six years of federal experience, a solid evaluation of that experience, and a schedule of twelve hours a week of transponder time for programming (which would soon reach a total of 64 hours per week on the primary satellite serving the rapidly expanding cable industry. ACSN hoped to utilize SATCOM I and cable TV to become self-sufficient through the delivery of educational programming service for adult viewers/subscribers.

In the early 1980s the cable industry became a fiercely competitive, highly visible industry with the introduction of new programming services on an almost daily basis and competition for newer, bigger and better cable systems in local communities reaching a virtually unmatched level. Entertainment, sports, news, movies, and network reruns quickly became the staple of cable television with major corporations pitting large amounts of money against future promise. ACSN's objective was to deliver a non-commercial, educational service that was, on the one hand, non-duplicative, and on the other, against the tide of a primarily entertainment oriented industry. But this was not to be the only place that ACSN operated against the trends being established. In fact, the importance of the entire marketing strategy becomes apparent when ACSN is compared to the industry as a whole.

From its experience during the experimental years, ACSN knew of identifiable markets for post-graduate training for teachers and some slightly less identifiable general educational/informational markets. In the meantime other experiments throughout the country had shown an additional market for undergraduate level college credit courses delivered via television to non-traditional students. Finally, using the techniques gained from the experiences growing out of the seminars, workshops, and courses the potential for delivering professional training was identified. Thus, ACSN began its independent life with four target audiences:

- Graduate students in teaching fields
- Undergraduate students
- Professionals seeking continuing education
- General audiences

To achieve financial self-sufficiency in the years ahead, ACSN instituted a fee schedule for:

- Cable operators that carried ACSN's program service
- Colleges that enrolled students in ACNS's graduate and undergraduate college credit program (telecourses)

During its first year of independent operation, ACSN continued to support the local institutional efforts of participating colleges by providing staff, sharing tuition fees and assisting with evaluation efforts (much like the original AESP model), while simultaneously attempting to position itself within the much broader cable industry as the "alternative programming service." ACSN's first six-month evaluation showed:

- The basic audience segmentation and programming strategy was solid.
- The concept of educational programming delivery was workable within the entertainment-oriented cable industry.
- The prospect of federal funding for more than one more year was in doubt.

Thus, some changes had to be made that would accurately reflect the needs of the marketplace and ACSN's ability to meet those needs.

It was at this time (Spring of 1981) that ACSN's current marketing strategies began to develop and reveal the plan for the future. First was a realization that ACSN could not and should not attempt to excel at both the distribution of educational programming and the facilitation/implementation of that programming at the local levels. Neither the cable companies nor the colleges with which ACSN was working were accustomed to national management of their local efforts; indeed, ACSN could realistically withdraw from the actual and literal management of the use of ACSN-delivered telecourses in local communities. The immediate effects of this were a significantly streamlined ACSN staff/organizational structure and considerable cost savings. ACSN eliminated from its payroll the individuals assigned to facilitate course management at local sites. This function was returned to local colleges who would then have total control of the instructional process. ACSN would continue to provide promotional and implementation information; offer outlines of successful strategies for these activities; support institutions in the development of syllabuses, examinations and other needed materials; provide access to necessary texts and books; and be available for consultation. But the institutions themselves began to facilitate all aspects of telecourse delivery and use.

The next step was slightly more difficult to reconcile. Since federal funding were decreasing more quickly than had been originally anticipated, new sources of revenue had to be identified on a quicker schedule. Despite the then-evident trend in the cable industry for programming services to make their schedules available to cable systems at no charge and to return advertising revenue or the potential for such to the operator, ACSN determined that it must increase the fee it charged to cable operators and develop new ways to generate revenues directly from the people it served with the programming. It also initiated a corporate development plan to provide additional financial support during the remainder of the transition period. This plan is described in a later chapter.

As ACSN heads into fiscal year 1983, the marketing effort of the company is supported by a realistic, marketplace-oriented structure, a marketing plan that places the most significant emphasis on the needs of the consumers to be served, and a strategy for generating revenues from the users of the network so that financial support of the network will shift, in time, from the cable operators to the actual users, much as the shift has taken place from the government to the cable industry.

With the mission firmly in mind to provide educational programming opportunities to adults with varying interests and needs, ACSN has conducted ongoing research that has helped to broaden the categories of viewers and the programming that can best serve their interests. With an overhaul of the programming schedule to address the target markets, ACSN has constructed its first season of programs within a new Packaged Program Concept, to be introduced as the Fall 1982 Season. The new ACSN target audiences and the types of programs packaged for them follow:

AUDIENCE	PROGRAMMING BLOCK	SAMPLE TITLES
(1) College Students (graduate and undergraduate)	Early morning, weekends	American Government Making It Count
(2) Professional/Business People	8:00-9:00 a.m., ET Tuesday-Friday	Computer Basics for Management Fundamentals of Engineering Speed Learning
(3) Hobbyists/How-to-Enthusiasts	9:00-10:30 a.m., ET 1:30-3:00 p.m., ET Monday-Friday and weekends	Bluegrass Banjo Home Accessories Photography Sport Fishing Needlecraft
(4) Mid-Life Career Changers; Unemployed	10:30-11:30 a.m., ET Monday-Friday	Women at Work The Working Series How to be Effective
(5) General Education/ Quality-of-Life audience	11:30 a.m.-1:30 p.m. Monday-Friday	Talking Films Real Estate Action Line Moral Question Fast Forward
(6) Public School Teachers/ Staff	3:00-4:00 p.m., ET Monday-Friday	The Heart of Teaching Strategies of Effective Teaching Learning Through Play

For each program category and its audience, the consideration has been to establish a pattern of program delivery that will generate and maintain the interest of the audience and encourage their continued viewership. In line with this, greater effort has been taken to provide the opportunity to viewers to more actively participate in the learning experience, regardless of whether the students' interest is for formal (i.e., college credit) education. In addition, when it is legitimate and appropriate to do so, ACSN will offer ancillary materials, such as books, transcripts and audio cassettes, to the viewers at standard list cost. The bottom line is that ACSN will begin to generate greater percentages of its operating revenues from participant-based sources so that within a few years the fee to cable operators can be eliminated. In the meantime, recognizing that ACSN is not truly competitive with other program suppliers on the price issue, it is attempting to compensate in non-price areas. As FY 83 begins, ACSN will provide an assistance package to cable operators that will include, but not be limited to, the types of marketing tools that other program suppliers generally supply to their affiliates as well as a financial reimbursement program that will create incentive to the operators to promote the carriage of ACSN in their local communities and generate viewership at local levels.

The reimbursement program provides a direct return to the operators for enrolled, books sold, and professionals registered for the various types of programming that ACSN offers. The marketing tools will consist of generic and specific advertising 'slicks,' 'bill stuffer' materials, news releases, program schedules, and other pieces that can be used locally as part of a system's ongoing marketing program.

Furthermore, to achieve the net effect of greater revenues than expenses, efforts are successfully underway to create new relationships with suppliers of programming to decrease the cost of acquisition for ACSN. With the new focus on providing educational programming to fairly discrete audiences, who will augment their learning experiences with purchase of ancillary materials, more and more print and video producers are making their video available to ACSN at little or no cost. These suppliers have recognized the potential of new markets for their products through cable distribution and see ACSN as the only viable mechanism for using the medium.

Marketing Structure

In order to facilitate sales and service to its major markets, ACSN's Marketing Division is divided into three basic sub-units: Cable Sales, Institutional and Special Market Sales, and Promotion. The cable sales section has the responsibility for ACSN's penetration in the cable industry, which includes prospecting of potential affiliates, sales presentations, closing of sales, and continued maintenance of existing affiliates. The special markets group is further sub-divided into institutional sales and premium sales. Responsibilities of this group include all ACSN relationships with colleges and universities, public school officials, and markets such as business and industry once they are identified with specific programs to be offered through ACSN. In addition, the premium sales effort consists of the identification of, negotiating for, coordination and sale of the ancillary print and audio materials that are available with ACSN programming. Another function of the special markets group is the ongoing identification of potential new markets and products that can serve them via ACSN.

The promotion unit is responsible for the design and production of all sales and affiliate relations print materials, including brochures, posters, newsletters, monthly program guides, affiliate aids kits promotion kits, ads, flyers, etc.

H. Network Operations

1. Responsibilities

Network Operations is the technical arm of ACSN. Its primary responsibility is the daily transmission of ACSN's programming to the SATCOM.

The Network Operations staff operates and maintains the origination equipment of "master control" as well as the transmission facilities of ACSN's Coldstream Earth Station located in the Engineering Operations Center, Coldstream Farm, Lexington, KY.

Network Operations also provides ground networking support to various live teleconference efforts.

2. New Beginnings

In October 1980 as ACSN emerged as a private non-profit corporation, Network Operations as it exists now was barely a concept.

Program origination, transmission, production and post production services were provided to ACSN by a loosely linked, nebulous structure of coordination between staff and the University of Kentucky.

University employees were assigned to ACSN support. They worked in UK's Office of Instructional Resources (OIR), a department whose primary responsibility was to support the academic departments of the University; some were assigned to both University and ACSN projects.

The organization had not so much been "designed" as it had "evolved" in response to the various needs and priorities of AESP. While the primary goal of program delivery was successfully carried out, the responsibilities for network operations of the University of Kentucky and the key staff supporting ACSN were not clearly defined.

Contributing further to the situation, ACSN did not itself own enough facilities to run its operation. For example, ACSN owned 1" video tape machines which were utilized by the University for production. In return ACSN used UK's 2" videotape machines for its programming.

ACSN's operation was located within the UK-OIR operation; as such, ACSN management had less direct involvement in evaluation performance, establishment of policy, or of direct day-to-day operations at that time.

ACSN realized, therefore, that it needed to reorganize to create a responsive support organization with direct line responsibility to management.

3. Background to Transition

Network operations' first goal was to bring into the organization responsibility for the technical services essential to ACSN.

The transmission facilities at Coldstream Farm were already under the direct control of the corporation. Uplink staff had been employed directly by ARC and transferred to ACSN as of October 1980.

Program origination staff (personnel responsible for program feed/playback), however, were employed to support ACSN by the University of Kentucky through its Office of Instructional Resources. The major components of ACSN's master control had been purchased by the University under ARC grants to the University of Kentucky Research

Foundation.

(A Master Control facility is the main center of origination for a television service. It generally consists of videotape machines, slide and film equipment, electronic image generators, and other video signal sources routed through a central switching devise or "switcher" which feeds a composite audio/video signal.)

ACSN first proposed a continuation of its agreement with the University under modified terms. At issue were questions related to the University's role in planning and establishing policy for the newly formed ACSN. Also of concern was a need to better integrate the efforts of University staff hired to support the ACSN programming. Essentially what was needed was a clearer organizational line for accountability and quicker response, to meet the changing needs of the network.

It was soon apparent to ACSN management that the support of the University of Kentucky which had contributed so much to the success of the project in its earlier experimental stages would need to be modified and changed.

By mutual consent both parties agreed to terminate the relationship. The University proposed a one-year transition period at a funding level for full support. ACSN proposed a six-month transition at a reduced level. Unable to compromise, the University declared that it would cease service to ACSN as of December 30, 1980.

4. Phase I

ACSN had analyzed its needs and options for a transition of services from the University of Kentucky; the first priority was that ACSN not go off the air. Options were then evaluated in terms of risk, cost, and implications for the long-term plan.

ACSN adopted a plan for a staged transition that would lead ultimately to a wholly owned and operated facility. First, after reviewing ACSN's needs for staff support, employees of UK attached to ACSN service were offered assignments in Programming or Network Operations.

Second, ACSN negotiated a service contract with Kentucky Educational Television (KET) for the installation and operation of ACSN equipment moved from UK. This agreement provided for 64 hours per week of master control operation for ACSN's program service and secured positions for ACSN/UK employees functionally assigned to Network Operations. It also insured that ACSN's network service would continue uninterrupted while other long-term arrangements could be made.

Final service at UK was provided on December 31, 1980. Interim master control operations utilizing leased television equipment located at KET ran from January 1, 1981 to January 28, 1981 while ACSN's equipment was moved, installed, and checked out. The primary goal of Phase I had been realized, and the KET agreement was a vast improvement over previous arrangements.

All master control equipment was aggregrated in one place and dedicated to ACSN support. Staff duties were entirely ACSN activities. Service requirements were specific and operating procedures well defined. The "ACSN group" from UK, now KET employees, were better integrated into ACSN's management structure though still somewhat isolated by their employment status.

The first KET agreement called for 64 hours of origination service per week — the minimum requirement to keep ACSN on the air.

While ACSN planned Phase II, it renegotiated with KET for necessary editing and production service to support the on-air operations. This was in response to the need to pre-produce promotional spots, program announcements, network identifications, and other materials for on-air use.

In November 1981 ACSN began construction of a new building to house its master control co-located with its uplink facilities on Coldstream Farm, Lexington, Kentucky.

5. Phase II

With construction on schedule ACSN gave notice to KET that service would not be required beyond March 31, 1982. Network Operations engineers had completed the technical planning for the new facility and begun preliminary installation of wiring and support hardware.

The key issue in each of the transitions was in maintaining ACSN's on-air operation while moving the very equipment utilized in that operation. During the first transition remote production facilities were used for nearly a month during installation. For this second transition Network Operations established an interim operation at its new facility with new production equipment which would later be free for editing and production support.

Over the weekend of March 20, key equipment was moved from the KET location to the new ACSN facility. On March 22, 1982 ACSN signed on for the first time from its own facility. By mid-April, 1982 the transition and installation was complete and on-air operation was back to a routine. Exhibits 13 - 15 show the antenna configuration and the new addition to the Technical Operations Center.

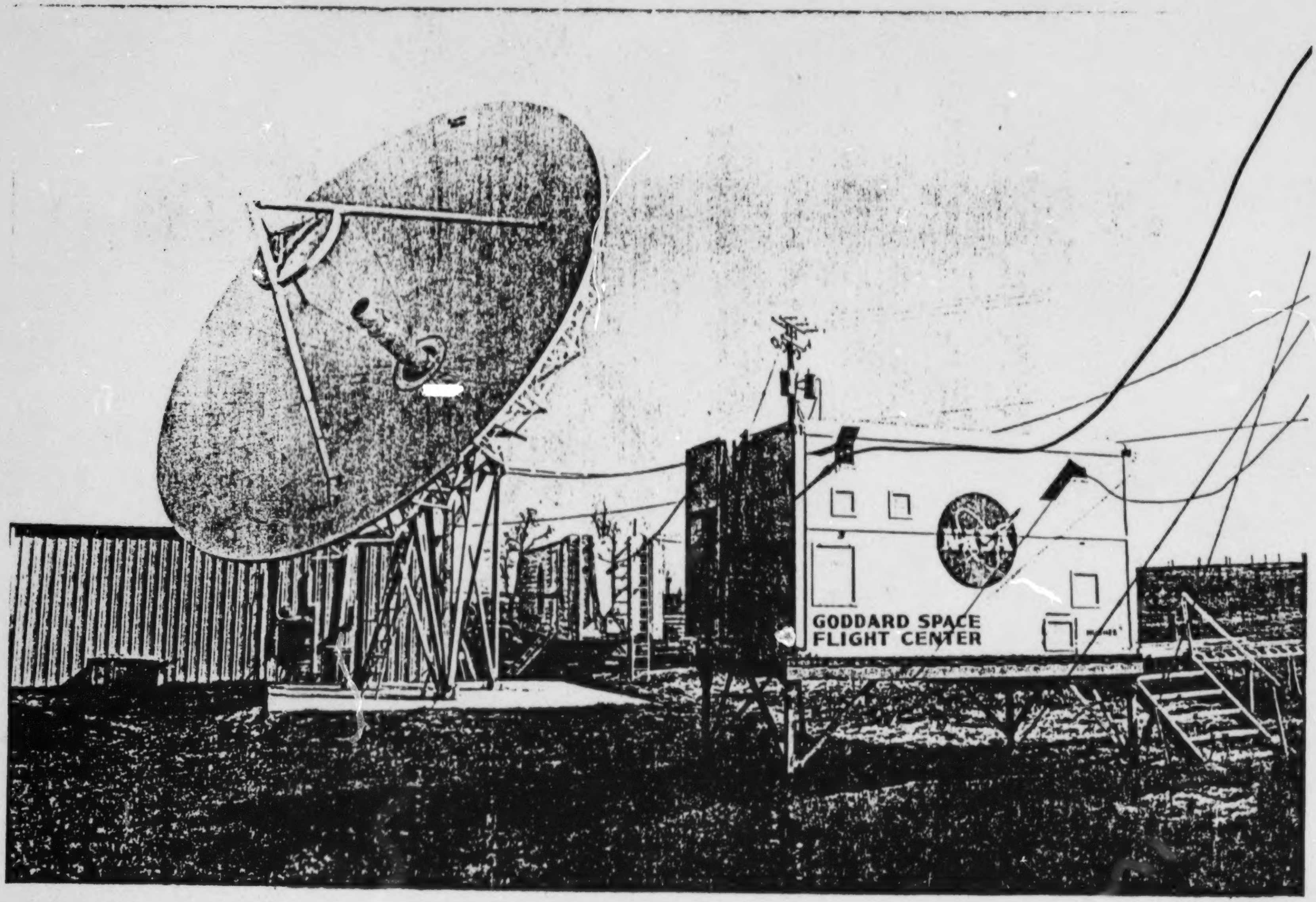
6. Master Control Equipment

An ongoing needs assessment guided the evolution of the Network Operations "program origination" or "master control" equipment configuration. While at UK, ACSN owned limited facilities and depended heavily on UK equipment for vital aspects of its operation.

Exhibit 16 shows an operational configuration of equipment owned by ACSN at that time. The equipment shown at the top of the Exhibit is origination equipment as mentioned earlier. "VTRs" are Video Tape Recorders/Players and are referenced by the size of tape that they use, shown here as 1" and 3/4". A film chain is a device to project films and slides to a TV camera.

All of these devices with the exception of the "Chyron" generate audio and video signals. These signals are routed to a single switcher which selects and combines both audio and video. Auxiliary audio equipment, reel to reel tape and cartridge tape machines also feed the switcher. From the switcher a composite signal comprises the program output. Significantly absent are any "2 inch" or "quadraplex" video tape machines. These were essential because over 90% of ACSN's programming was in this format and had to be acquired by ACSN during Phase I.

EXHIBIT 13


GODDARD SPACE
FLIGHT CENTER

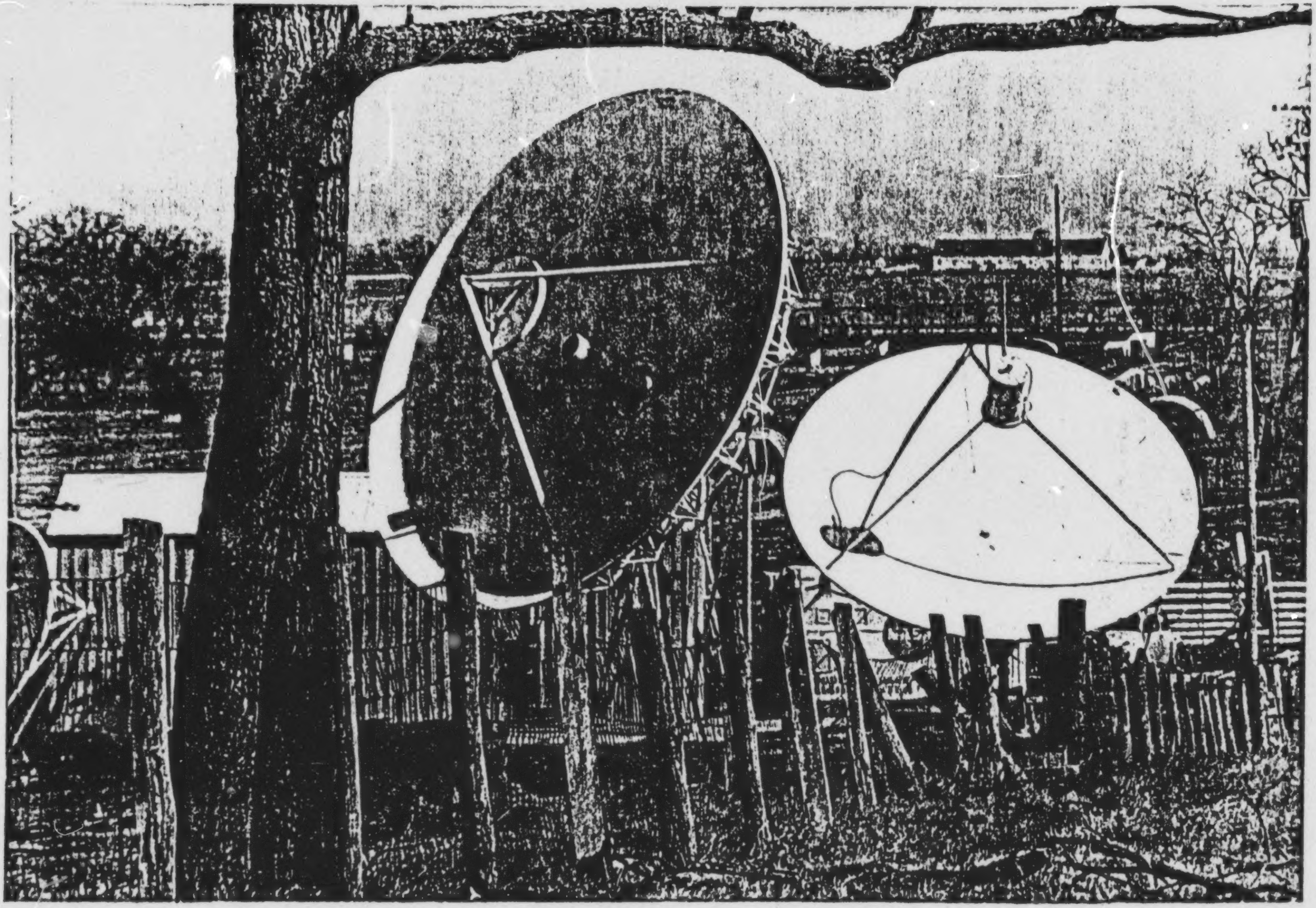


EXHIBIT 14

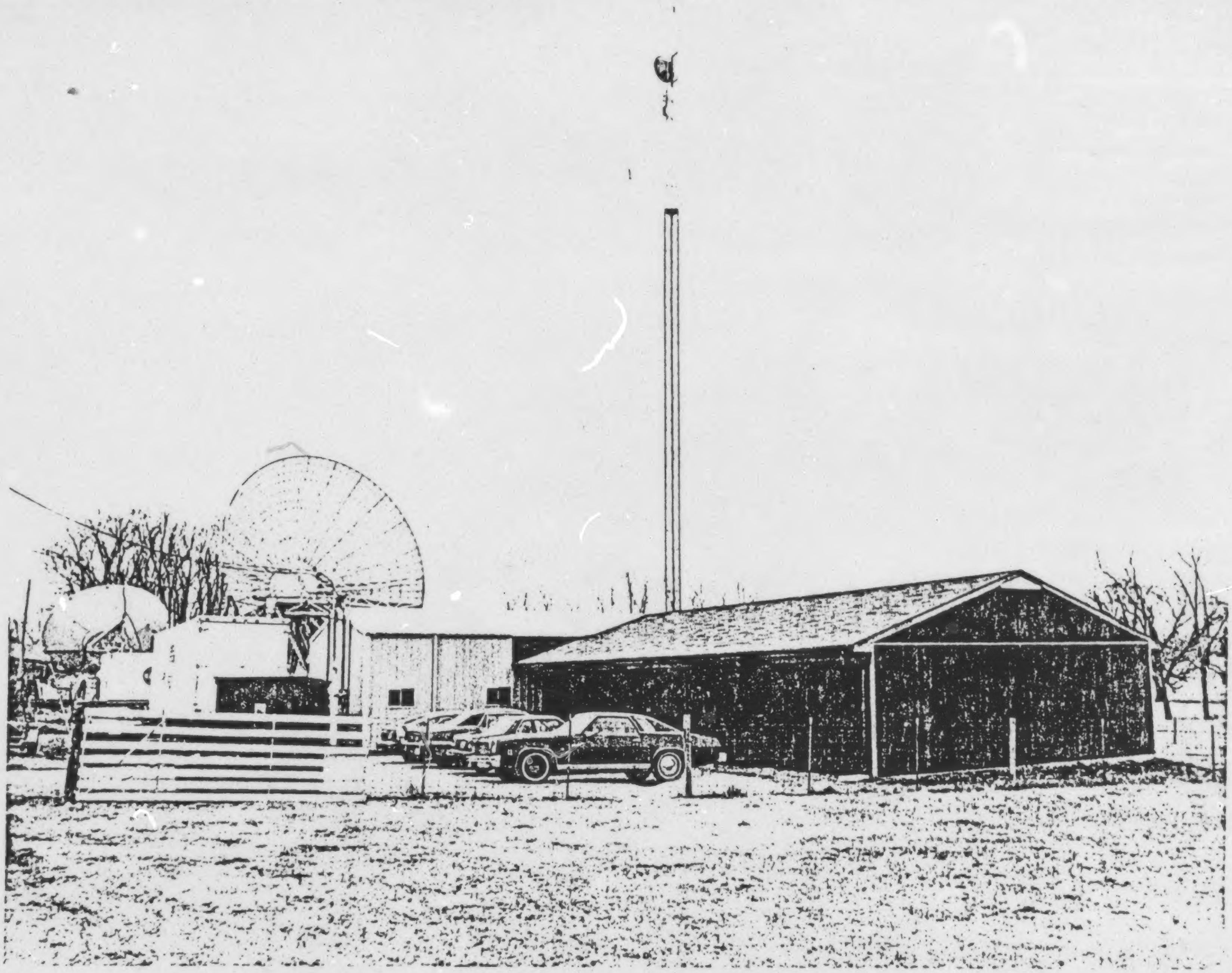


EXHIBIT 15

Also apparent in Exhibit 16 is a very limited output capability. With only one "switcher" or "control board" ACSN could not perform any editing or production while on-air.

Exhibit 17 represents ACSN's master control configuration as it exists today. Note the addition of 2" VTRs and extra 3/4" VTRs. Also note that the addition of a production switcher and audio board allows for a second output. This second output allows separate control of audio and video appropriate for editing and production and is also available for use as a second program feed or as a backup if the main program switcher fails.

7. Transmission Equipment

ACSN's Coldstream Earth Station was among the first non-RCA owned satellite facilities authorized to access the SATCOM Communications Satellite. Located on property leased from UK it employs the latest communications technology and enjoys a reputation of excellence in an expanding satellite industry.

Exhibit 18 represents the configuration of ACSN's transmission equipment at the time of the company's incorporation. Two fixed (non-steerable) receive only terminals (ROT) and ACSN's master control fed a single main transmitter and backup. These in turn drove the 10 meter (33 ft.) fixed uplink antenna.

With the assistance of NASA and NIE, ACSN acquired in June 1981 the components of a "relocatable" 6.5 meter uplink. While the antenna itself is not type approved by the FCC for transmit use, various

A MASTER CONTROL CONFIGURATION
OF EQUIPMENT AVAILABLE
OCTOBER '80

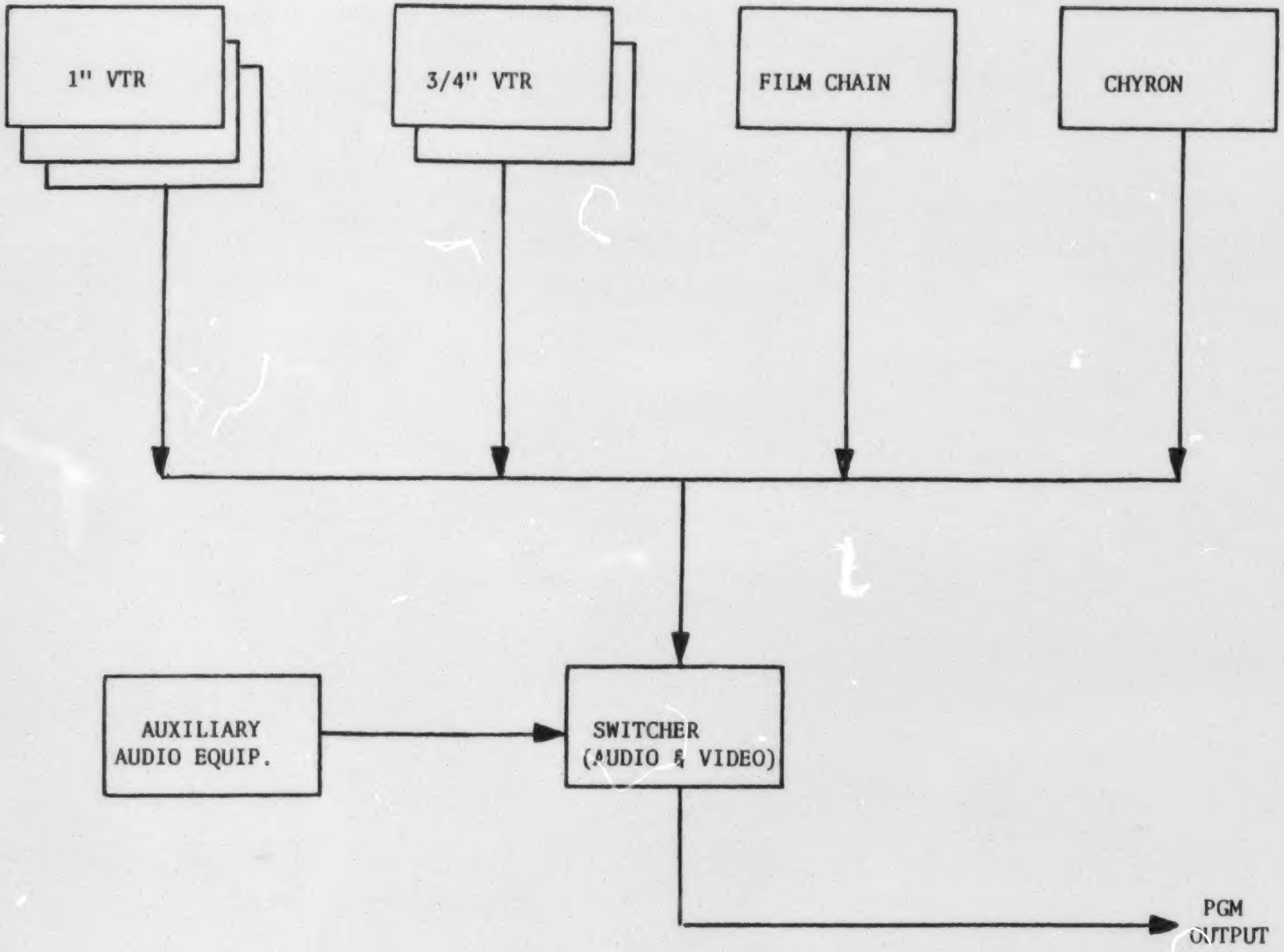
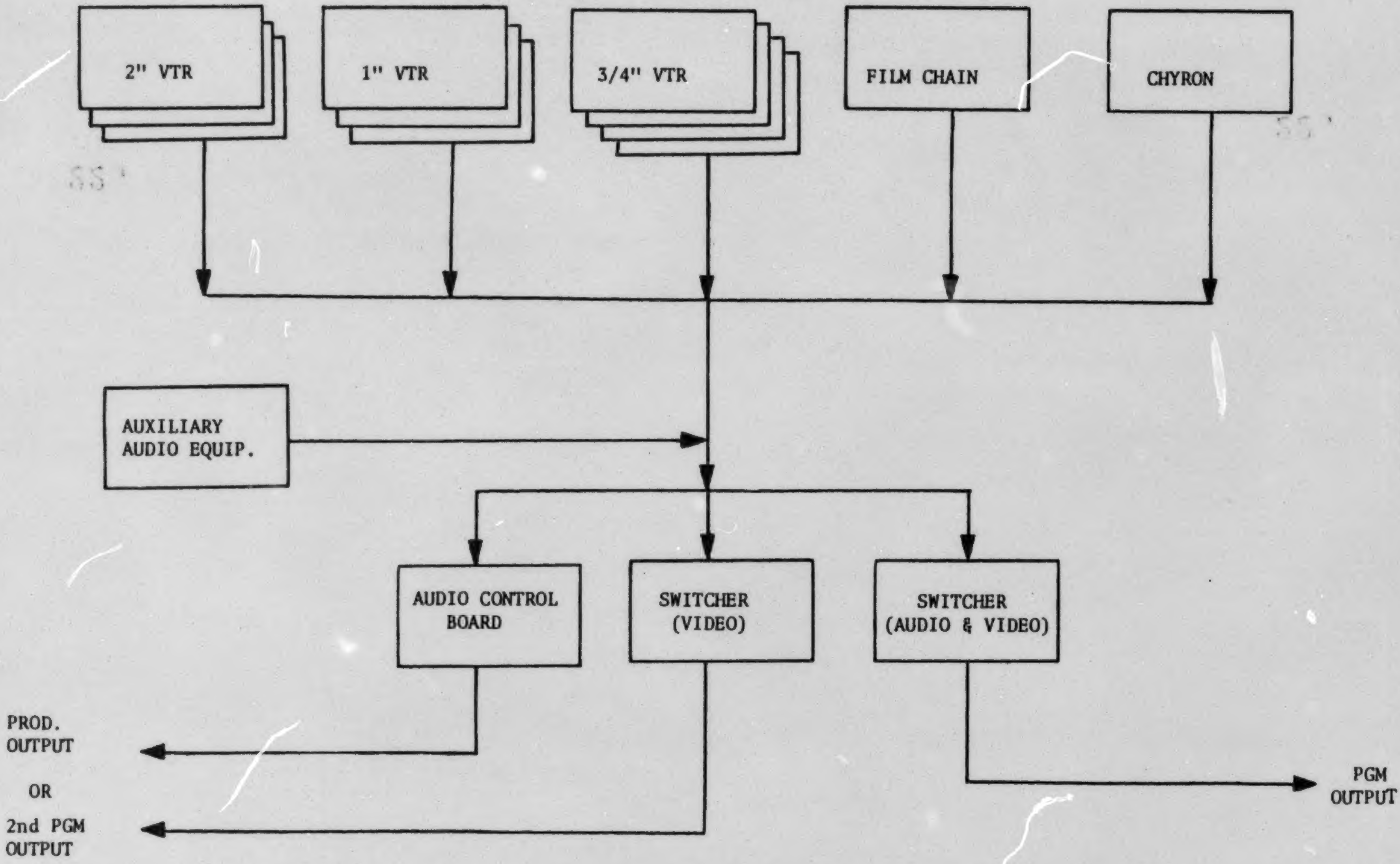

1" VTR
3/4" VTR
FILM CHAIN
CHYRON
AUXILIARY AUDIO EQUIP.
SWITCHER (AUDIO & VIDEO)
PGM OUTPUT

EXHIBIT 16

EXHIBIT 17

CURRENT MASTER CONTROL CONFIGURATION


2" VTR
1" VTR
3/4" VTR
FILM CHAIN
CHYRON
AUXILIARY AUDIO EQUIP.
AUDIO CONTROL BOARD
SWITCHER (VIDEO)
SWITCHER (AUDIO & VIDEO)
PROD. OUTPUT
OR
2nd PGM OUTPUT
PGM OUTPUT

TRANSMISSION CONFIGURATION
AS OF
OCTOBER '80

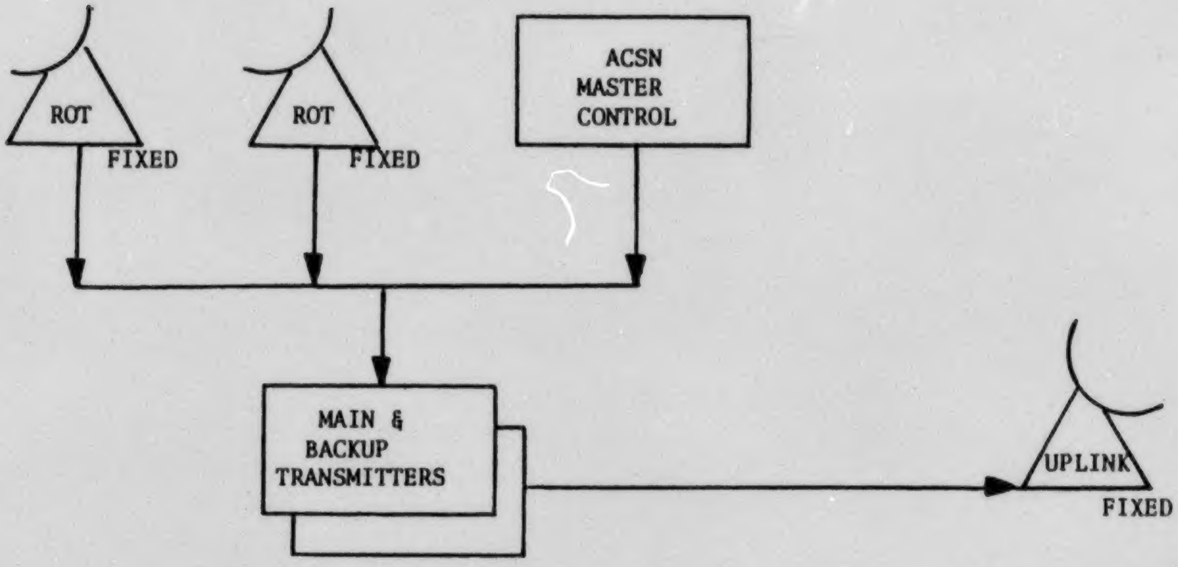

ROT
FIXED
ROT
FIXED
ACSN
MASTER
CONTROL
MAIN &
BACKUP
TRANSMITTERS
UPLINK
FIXED

EXHIBIT 18

components are being repaired and retrofitted. ACSN's goal is to utilize the NASA equipment in an operational configuration supporting a second uplink for backup and additional service, thus providing ACSN a fully redundant facility. The second uplink would allow ACSN to provide transmission services for other users. It's steerable nature would provide access to any available domestic satellite.

Exhibit 19 represents a current and proposed configuration for such an operation. The 6.5 meter antenna and associated hardware from NASA are employed as a steerable receive terminal. The NASA transmitter, now dated but still reliable, becomes the back-up for two "on line" (immediately usable) main transmitters. These can simultaneously feed the existing fixed 10-meter uplink antenna or the proposed steerable second uplink.

8. Professional Staff

Network Operations staff is organized as in Exhibit 20. The Director of Technical Services in Washington has overall management responsibility and answers directly to the Vice President of Operations. A Contract Services Representative located in Lexington is in charge of overseeing services to outside users of facilities. A Network Coordinator is responsible for all non-routine and remote transmission service required to support ACSN special programming. These constitute live feeds from locations other than Lexington, Kentucky which involve special facilities and extra satellite capacity. The coordinator also establishes 'ad hoc' or

CURRENT & PROPOSED TRANSMISSION CONFIGURATION

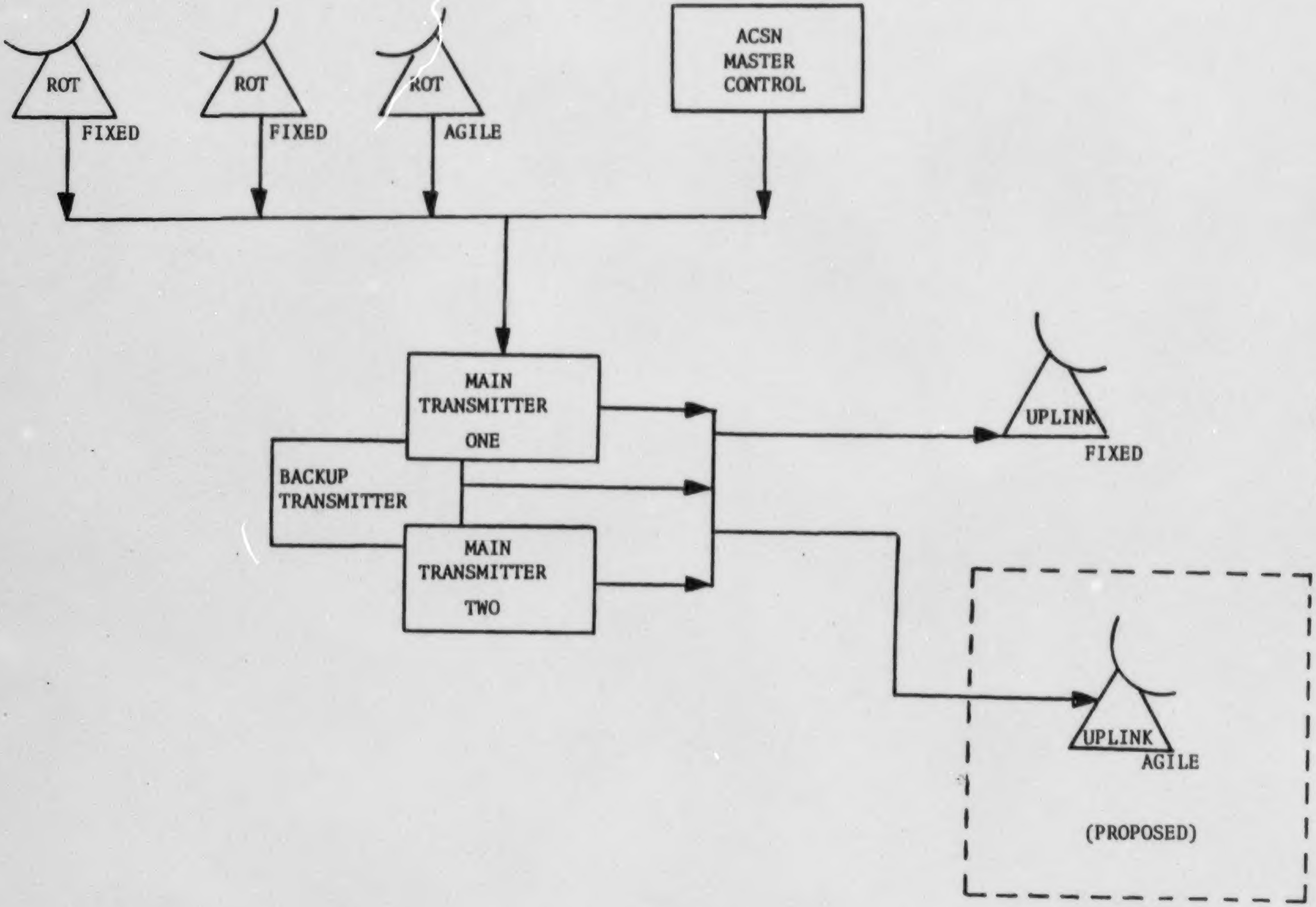
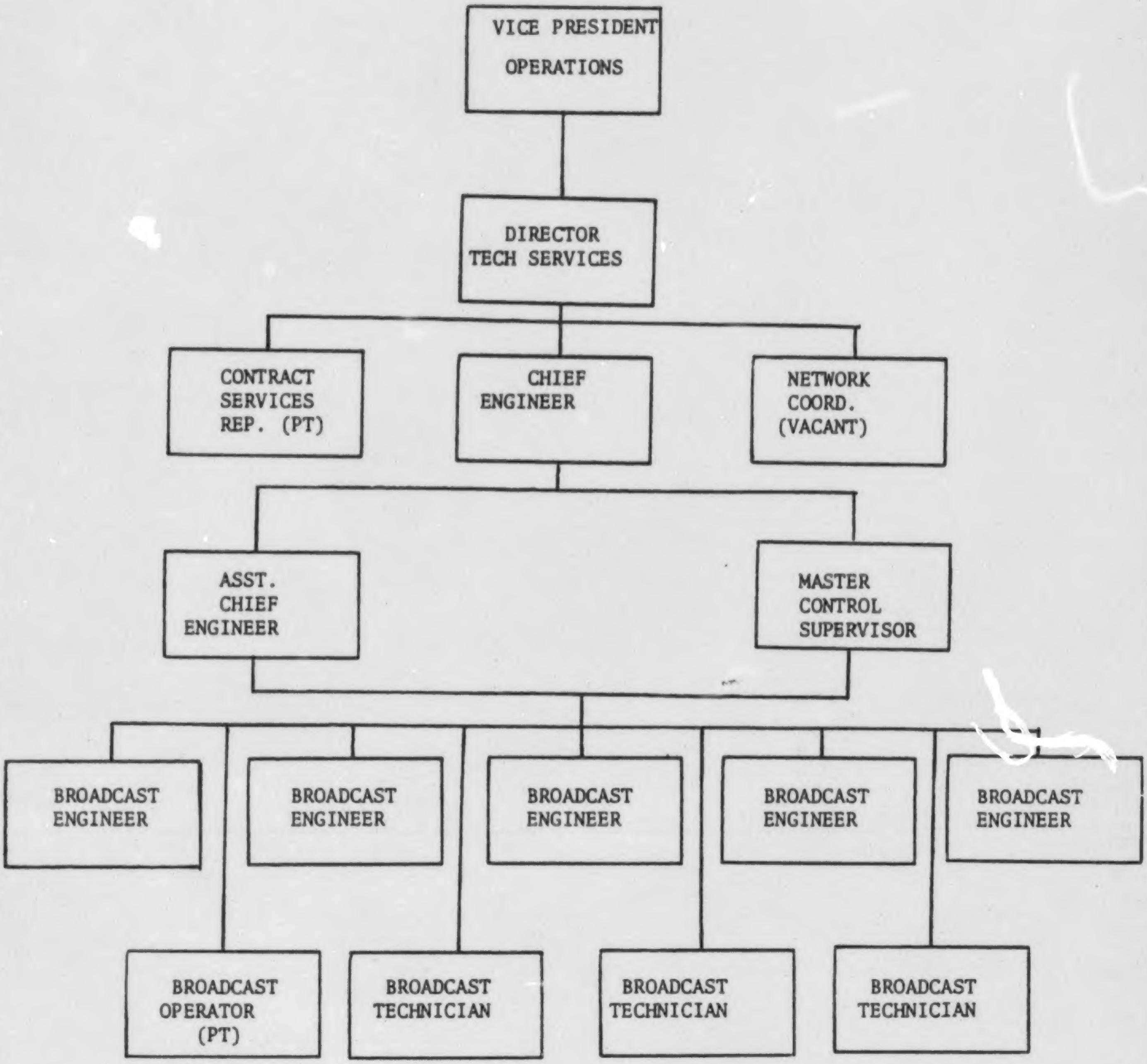

ROT
FIXED
ROT
FIXED
ROT
AGILE
ACSN
MASTER
CONTROL
MAIN
TRANSMITTER
ONE
BACKUP
TRANSMITTER
MAIN
TRANSMITTER
TWO
UPLINK
FIXED
UPLINK
AGILE
(PROPOSED)

EXHIBIT 19

EXHIBIT 20

NETWORK OPERATIONS STAFFING


VICE PRESIDENT OPERATIONS
DIRECTOR TECH SERVICES
CONTRACT SERVICES REP. (PT)
CHIEF ENGINEER
NETWORK COORD. (VACANT)
ASST. CHIEF ENGINEER
MASTER CONTROL SUPERVISOR
BROADCAST ENGINEER
BROADCAST ENGINEER
BROADCAST ENGINEER
BROADCAST ENGINEER
BROADCAST ENGINEER
BROADCAST OPERATOR (PT)
BROADCAST TECHNICIAN
BROADCAST TECHNICIAN
BROADCAST TECHNICIAN

one time only receive networks as required in coordination with Marketing and Programming, and performs research and generates reports for long-term planning.

The Chief Engineer has overall responsibility for the operation of the entire Coldstream facility. He establishes technical specifications and policy, directs scheduling of personnel and facilities, and supervises purchasing and maintenance. The Assistant Chief Engineer is responsible for direct supervision of transmission operation, day to day scheduling, and fiscal coordination with upper management. In the absence of the chief engineer he becomes manager in charge.

The Master Control Supervisor is responsible for ACSN's on-air operation in coordination with programming. The Programming Department schedules the programming on ACSN's network and develops operating logs. These logs are the minute-to-minute guides for the master control operators.

Reporting to the Assistant Chief Engineer or Master Control Supervisor depending on scheduled needs is a pool of Broadcast Engineers and technicians. These staff members rotate through master control, transmission, and maintenance positions. Master control operators actually Run the on-air operation. Transmission engineers operate the transmitter, and maintenance technicians keep it all working.

9. Service for Users

In addition to providing priority support to the ACSN's program service, Network Operations plans to be a revenue generqtor by offering services to other users as facilities are available.

Two such services, use of ACSN's excess transponder time on SATCOM and use of ACSN's uplink to that satellite are regulated by the FCC. These service offerings are managed in compliance with the FCC rules governing "shared use" of facilities. "Shared use" limits the charges for these services to cost recovery.

Other services, from video tape editing to technical consulting are administered to fully utilize the capacity of ACSN's technical facilities and staff.

I. ACSN - 1982

In the current year ACSN has been successful in generating both a greater amount of operating revenues, and a greater number of sources of revenues. In 1982, ACSN expects to nearly triple the FY 81 level of operating revenue of $380,000. In addition, current and planned sources of revenue include:

Marketing

- Cable subscriber fees
- College tuition fees
- Public school fees
- Book sales
- Teleconference fees

Programming

- Program syndication fees
- Program delivery fees

Network Operations

- Excess transponder sales
- Subcarrier sales
- Post-production services

All of these revenue sources have been developed over a period of time, and have been described in more detail elsewhere in the report. In addition to operating revenues, ACSN has developed a specific plan for raising funds from the private sector in the form of corporate contributions and foundations grants.

1. ACSN Business Plan

Today, ACSN remains the only cable programming supplier with a full-time commitment to the delivery of educational, instructional and informational programs for adult viewers and learners. Though some competition from other suppliers can be expected in the years to come, ACSN has initially established its uniqueness as the premier educational cable service in such a way that it will serve a significant portion of a large market and share only a small segment of the full potential with competitors. In order to maintain and improve on this goal, ACSN must position itself within the industry for both the short and long term.

At the current time, ACSN is one of the few basic cable services that requires a payment from cable operators without offering advertising revenue potential or other financial assistance for the local systems. The others are Nickelodeon, C-Span, WOR, WTBS, and WGN, as well as four services providing data and text transmissions. Each of these services is striving to succeed in the marketplace on the basis of a unique service and with a discrete potential market. Exhibit 21 indicates the industry status with regard to subscriber fees, advertising potential and financial assistance to cable operators (non-video programmers excluded).

Three of the four services in the non-compensation category are superstations (WGN, WOR, WTBS) somewhat in a class by themselves, but claiming in many respects the same demographic audience as ACSN. Nickelodeon, a children's service, is reaching many homes that ACSN seeks, with adults in the home harboring the same values as ACSN viewers. C-Span's audience is probably the same potential market at

EXHIBIT 21

SUMMARY OF MAJOR CABLE PROGRAM SERVICES

SERVICE	PROGRAM TYPE	SUBSCRIBER COUNT*	SUBSCRIBER FEE
WTBS	Sports, movies, national-international news	17,945,000	10¢/month
CBN	Christian music, news, sports, children and family entertainment	14,700,000	None
ESPN	24-hour sports	13,609,478	4¢/month
CNN	Round-the-clock news coverage specifically for cable viewers	10,668,500	15-20¢/month
C-Span	Daily live coverage of the House of Representatives, Congressional hearings	10,500,000	3¢/month
USA Network	Sporting events; cultural, women's and youth oriented programming	9,500,000	1¢/month
BET	Features black performers, features films, classics, music specials and sports	8,858,774	1¢/month
WGN	Movies, sports, specials	7,547,157	10¢/month
Nickelodeon/ Arts	Constructed to capture the spirit and curiosity of youngsters and adolescents	6,200,000	up to 15¢/month
WOR	Sports, movies, plus movies and TV shows from past decades	4,607,784	up to 15¢/month
PTL	Christian entertainment including: talk/variety; children's drama and specials	4,200,000	None
MSN	Information, opinion and entertainment for the general consumer	4,100,000	None
SPN	Movies, talk and celebrity shows, music and public affairs	3,508,364	None
CBS Cable	Original programming to reflect the cultural diversity of America	3,000,000	None
MTV	All stereo musical channel	2,500,000	None

EXHIBIT 18
Page 2

SERVICE	PROGRAM TYPE	SUBSCRIBER COUNT*	SUBSCRIBER FEE
ACSN	College-level and continuing education credit and public service programming	1,381,304	3.75-5¢/month
Trinity	Religious programming	1,271,562	None
CNN 2	Cable news service	789,000	0-5¢/month

*As of December 31, 1981

ACSN's, with public service programming that appeals to a predominantly middle class group. Five other services, therefore, have been identified as basic services, cable-operator supported, with potential markets somewhat similar to that sought by ACSN; the subscriber counts of these services range from a low of almost five million to a high of almost 18,000,000. This suggests that all other things being equal, ACSN has the potential for significant subscriber growth in the cable industry.

Since all things are not equal and ACSN competes for channel space with over 70 other programming services, ACSN has begun employing new strategies to better position itself in the marketplace. One of these strategies is an already initiated incentive plan for cable operators that provides a payback to the operators on the basis of numbers of students enrolled in ACSN-delivered courses. The uniqueness of this strategy will serve the company well; however, the potential revenue to the operator is limited initially.

2. ACSN Business Areas

Based on the structure of the cable industry, ACSN's position within the industry and future viability, it has been decided that ACSN will shift toward a participant-supported network. To do so requires a re-prioritization of business areas and services and a re-emphasis on the marketplace that is expected to support future activities of the network. Therefore, ACSN products have been grouped by Business Areas for marketing purposes and to match ACSN's resources and organizational structure. Though the total ACSN product line remains virtually the same, both the approach and the emphasis will change. The Business Areas, in the recommended priority order, are:

a. National Program Service;

b. Technical Services; and

c. Program Syndication.

An explanation of these business areas follows.

a. National Program Service

The 64 hour per week service of educational, informational and instructional programming delivered to subscribers through and by local cable systems remains the primary business of ACSN. In order to achieve a greater reliance on the users of the service for financial support, the majority of the ACSN resources will be allocated to support of the technical, programmatic and marketing efforts of the service. Each ACSN operating division will be accountable for the success of the service. The product line of educational programming will be acquired to serve five distinct, though not mutually exclusive, target markets: college students; public school teachers and staff; professional and skilled workers in horizontally or vertically discrete functions or industries; professional and non-professional working people through place of employment; and individual, casual viewers seeking creative or enriching outlets for leisure time. This business area, clearly defined as ACSN's top business priority, is expected to contribute about 20 percent of the revenues in FY 82; over one-half of this amount will be garnered from cable system fees. The

National Program Service contribution to total revenues will grow to 58 percent in FY 83; again, over one-half of this amount will come from cable systems. FY 83 represents the high water mark of cable system support; over the succeeding years, the percentage of revenues from cable systems will be continually reduced. In addition, steps will be taken along the way to provide support for ACSN cable affiliates in the form of time to run local advertising. This is being investigated presently.

b. Technical Services

In order to operate a full service educational network, ACSN must maintain staff and equipment to perform numerous technical activities. As the sophistication of the technology and of the company grow, the demands on the Network Operations division will increase for support of the National Program Service. However, it is anticipated that some excess equipment capacity will exist at the technical facility in Lexington, Kentucky. To maximize the revenues available from the sale of excess capacity and other services, ACSN will actively pursue contracts to provide technical services to regional clients in the Lexington area and national clients when capabilities permit. The services to be made available to outside clients include sale of excess transponder time (when such time is not required for the National Program Service); program origination service to utilize "off-hours" of the ACSN uplink facility; post-production and remote feed services to maximize the efficiency of microwave and tape equipment; and various technical and production support services. This business area will contribute approximately 9 percent of ACSN's revenues in FY 82; 10 percent in FY 83; and with no significant change in technical and equipment configuration, reduce to 9 percent in FY 84 to provide sufficient resources for the additional demands by the National Program Service.

c. Program Syndication

The third business area is Program Syndication — the leasing of ACSN-produced programming to other broadcast and non-broadcast entities for further distribution. As with the Technical Services, Program Syndication will involve the maximization of revenues based on allocable funds available after providing adequate support to the National Program Service.

To maintain its status as the leading provider of adult educational materials, ACSN will, under certain conditions, produce original programming to meet the specified needs and demands of its consumer audiences. ACSN will produce these programs using external funding for production while maintaining product control. The determination to produce such programming will be based on the needs of the primary business area —the National Program Service — and the markets it serves. This activity will be pursued in close coordination with the ACSN Corporate Development effort. Syndication will contribute approximatey 6 percent of ACSN's revenues in Fy 82; 12 percent in FY 83; and remain at 12 percent in

FY 84. The proposed projects for that year will have longer exclusive runs on ACSN and will, therefore, be contributing to the revenues provided by the National Program Service.

2. Corporate Development

As mentioned earlier, in 1981 ACSN's business revenue was approximately $380,000. By the end of 1982 ACSN will have almost tripled its revenue base to nearly $1,000,000. ACSN expects to at least double this amount again by the end of 1983. All good progress and steady growth showing the viability of the ACSN concept.

Even with the positive direction and results ACSN has already achieved, ACSN will still need additional support to continue on its course of becoming completely self-sufficient. To meet this need and provide the additional support during its transition to the private sector, the ACSN corporate development activity was established. An outline of the approach and strategy for this effort is included as Exhibit 22. In general, the responsibility for this effort faills directly to ACSN's president and executive vice president. Under their direction ACSN staff has targeted over 200 corporations and foundations with public service focus similar to that of ACSN. These organizations have been ranked with respect to ACSN's efforts and resources.

As with ACSN's business revenues, ACSN's fund raising efforts have also gained momemtum. The RCA Corporation and the Firestone Foundations have provided generous gifts for general operating support; in addition, ACSN has received modest financial assistance from a number

Exhibit 22

ACSN Corporate Development Activity

I. Goals

1. Establish a systematic structure for the ACSN corporate development activity to ensure ACSN's long term viability and growth.
2. Develop and implement immediate ACSN corporate development activity to bridge the potential FY 83 cash flow gap through contributions and/or other corporate relationships.

II. Strategy

1. Review all on-going development activities and assign appropriate category to each, based on a 5-point scale of priorities.*
2. Identify as primary targets those organizations that:
    - A. Have already an established interest in the cable industry;
    - B. Have funds available for general operating support;
    - C. Have an established contact with ACSN.
3. Develop specific strategies based on individual corporate interests to approach each organization.
4. Implement a systematic approach to accomplish ACSN goals and support strategy objectives, including:
    - A. Identification and selection;
    - B. Approach strategy and presentation;
    - C. Individual visitation schedule;
    - D. Visitation schedule implementation, including
        - o phone contact,
        - o visit,
        - o proposal development,
        - o negotiations and revisions,
        - o follow-up;

*See Attachment A

E. Activity review and reprioritization;

F. Board liaison as appropriate.

III. Activity Schedule

1. Identify resources necessary to support corporate development involving the following activities:

   A. Research and analysis of promising organizations;

   B. Compilation and organization of the information to provide maximum support;

   C. Development of individual approach strategies;

   D. Proposal efforts/presentations;

   E. Follow-up.

2. Identify old and new target organizations.

3. Prioritize according to approved goals.

4. Perform analysis and research on priority organizations:

   A. Brief corporate history;

   B. Goals and areas of interest;

   C. Financial information, including

      (i) growth pattern,
      (ii) liquidity,
      (iii) investment/funding pattern,
      (iv) major thrust areas,
      (v) sensitivity to economic conditions;

   D. How and where do their interests intersect with ACSN interests and goals,

      (i) directly, e.g., programming,
      (ii) indirectly, e.g., books;

E. Who are key individuals in the organization (not strictly confined to cable activities),

  (i) general background,
  (ii) history with the organization,
  (iii) interests,
  (iv) business strengths.

5. Recommend initial approach strategies identifying areas of mutual benefit.

6. Develop schedules for individual organizations:

A. Letters;

B. Visits — to whom and by whom (may wich to contact severel levels of the organization);

C. Proposals;

D. Board interface;

E. Follow-up;

F. Closure.

7. Review "Plan" and "Schedule."

8. Implement "Plan" and "Schedule."

9. Establish relationship; obtain funds and/or cooperation.

ACSN Corporate Development Activity

Attachment A

5-Point Scale of Corporate Development Priorities

Category 1: Corporations with an established interest in the cable industry that provide general operating support and with whom ACSN has established contact.

Category 2: Corporations with an established interest in the cable industry that do not provide operating support or with whome ACSN has not established contact.

Category 3: Corporations/foundations with a history or experience in funding activities similar to ACSN's mission — proposal opportunity.

Category 4: Corporations/foundations that have rejected an ACSN proposal but still represent a good prospect for future support.

Category 5: Same as Category 4 but not deemed a good prospect. This category also includes corporations/foundations that are poor prospects for a new proposal submission.

of small Eastern-based coal companies. Through this effort ACSN hopes to receive \$150,000 to \$300,000 during FY 83 of general operating support.

Another area targeted for support is program development. As stated elsewhere in this report, ACSN now has access to over 1.5 million homes with projections for next year's penetration ranging as high as 5 million homes. With America becoming more and more the futuristic "wired nation" the focus shifts from the hardware delivery technology to the software or programming availability. As with most new technologies the software development lags behind the hardware advancement. It is ACSN's hope and purpose in approaching corporations and foundations to solicit their assistance in addressing identifiable public educational/training needs through support of specific ACSN program projects. With such support ACSN can immediately demonstrate trhough the utilization of its national satellite-to-cable home delivery the economy and impact of such effort.

3. Additional Areas of Support

Over the last 18 months ACSN has moved dramatically from total dependence on Federal grant support to support from the marketplace. in accomplishing this transition ACSN has and will continue to seek private sector support to insure its viability during the start-up phase of the network. Indeed, since ACSN provides a broad range of educational services to the working professional, ACSN feels strongly that industry should support, through contributions, the public services that ACSN provides to the communities in which they thrive; and, in particular, make funds available for specific programming designed to improve the capabilities of American workers. In this way, American industry uses and supports its technological advantage to meet its own objectives by better preparing its employees through educational/instructional services at the home and workplace.

Further, because of the Appalachian Regional Commission's (ARC) commitment to the economic development of Appalachia and because of the service ACSN has rendered and will continue to provide in support of this commitment, it is anticipated that the ARC will fund increased utilization of this service in the Region and provide for the general support of the network during this transition period.

Part III

ACSN and the Future

Part III - ACSN and the Future

A - General

ACSN has developed through many organizational formats, delivery formats, and program formats to a point where evidence suggests that a unique organization has been created — and that the early experiment can now truly be called a success. ACSN will remain a unique entry in the increasingly diverse and competitive cable television industry. But of greater importance is the fact that programming products are being delivered to an audience that not only wants such programs, but acknowledges that ACSN programming makes a difference in their lives!

ACSN competes in a primarily entertainment/sports/news oriented industry, and can now say that it can hold its own ground in this arena, and continue to thrive and grow. In order to continue its successful growth pattern, several goals will have to be achieved; among these are:

- Greatly increased visibility among cable operators and homes in Appalachia and the United States
- Improved community relationships including strong ties with local colleges, businesses, and schools as well as cable operators and homes.
- Substantial increase in the revenue derived from the ACSN program schedule segments, to supplement and eventually replace cable operator fees.
- Continued evaluation of audience requirements, as well as successful

program/delivery formats.

B - ACSN Corporate Organization

As ACSN management looks ahead, it is evident that no major revisions will take place in either the basic structure or operation of the network in the foreseeable future. However, it is clear that the marketing division will substantially increase in size, as field representatives, promotional personnel, and personnel involved in video/print product development are added. The Network Operations and Programming divisions will remain essentially the same structure and size that they are today.

C - Future Ideas

Where is ACSN going in the future? Probably the best way to address this question is to review categories and projections for the next three to five year time period. In reviewing these categories, the following future actions and trends are evident:

- A gradual reduction of fees charged to cable operators, with a parallel increase in ACSN subscribers to over 10 million homes.
- A large expansion in revenues obtained from users, revenues from program syndication and delivery, and technical services revenues.
- A gradual revision and reformatting of the program schedule, in order to meet viewer needs and maximize revenues.

- Development of ACSN as a clearly acknowledged leader in educational delivery in the United States.

D - Conclusion

It has been difficult to totally summarize the lessons learned, new directions taken, and resources utilized to bring ACSN to its current status. ACSN has evolved from a regional educational experiment to an educational/informational program service accessible by literally millions of persons throughout the United States. Certainly these accomplishments could not have been achieved without the continuous support of the primary agencies supporting ACSN from the start - initially the Appalachian Regional Commission, and the National Institute of Education, and later NASA and the National Telecommunications and Information Administration. ACSN serves as an example of an operational entity that has successfully been able to make the transition from a government-supported project within a government program to a private entity well on its way to financial self-sufficiency. Finally, it is important to realize that a substantial effort is required to continue the growth of ACSN. With the basis of support ACSN has received from the onset, the accomplishments to date, and the organization in place at the present time, the continued growth of ACSN as a thriving network appears to be an achievable goal.

Bibliography

1. Appalachian Education Satellite Program Proposal, submitted to the National Institute of Education by the Appalachian Education Satellite Program, December 1976.

   This was the original proposal in response to a request from NIE to AESP to submit a plan for experimentation and further testing of the Appalachian Education Satellite Program. 464 pages.

2. The Appalachian Education Satellite Program Proposal to NIE, November 1, 1977 - October 31, 1978.

   The focus of this proposal is the expansion of the AESP system in order to become a cost-effective, self-supporting organization which can meet the continuing education needs of virtually all sections of the Appalachian community.

3. The Appalachian Education Satellite Program Porposal to NIE, 1978 - 79. Three volumes: Vol. 1 - The Proposal; Vol. 2 - Budget; Vol. 3 - Appendices.

   This proposal specifies the expected results of the project and the precise processes that need to occur to obtain those results. It reaffirmed that the major goal is for AESP to become institutionalized and responsive to the educational service delivery needs of Appalachia.

4. The Annual Proposals Prepared by ACSN in 1979 - 80, 1980 - 81 and 1981 - 82 for submission to NIE.

5. Public Service in Rural America - A Report on Rural Appalachia, prepared by the Appalachian Regional Commission. Submitted to the Corporation for Public Broadcasting in conjunction with Public Service Satellite Consortium, September 1, 1978.

   This survey examined alternatives for extending public television services in rural America. The report described the results of the survey in the Appalachian states. Material from the survey was helpful to the developing AESP/ACSN program.

6. Education on the Beam - A Progress Report on the Appalachian Education Satellite Project by William J. Bramble, Claudine Ausness, and Rodger Marion, 1975.

This report is a short, illustrated document based on a paper presented by Dr. Bramble, the Director of Evaluation for AESP at the 1975 annual meeting of the American Education Research Association, April 1, 1975 in Washington D.C. as part of symposium entitled "Major Communications Satellite Demonstrations for Education, Health and Technology." The printed summary was produced under a grant from NIE.

The report summarizes the results of the AESP Experiment Courses 1974 - 75, suggested conclusions that could be drawn from the results and mentions furture plans.

7. A Follow-Up Report of the Appalachian Education Satellite Project by William J. Bramble, Catherine E. Hensley and Dennis Godlstein.

A reprint of the article from pages 81 - 94 of the Journal of Educational Technology Systems, Vol. 5, No. 2. 1976 - 77.

This paper describes the activities and outcome of the Appalachian Education Satellite Project.

8. The Appalachian Education Satellite Project - Final Report

This report tells the story of the formation of AESP and documents its results. It accurately anticipates the development of a communications network such as ACSN for it concludes with the following prophetic statement........"The Appalachian project...has generated a ground swell of a favorable public opinion. The effect of this may, in the near future, culminate in a substantial Federal allocation towards continued satellite services to remote areas such as Appalachia. In response, the Appalachian Regional Commission should be again prepared to provide the leadership to address this situation for the benefit of the Appalachian people."

And it did.

9. Special detailed reports were prepared by the RCC Evaluation Componet to summarize the results of the needs assessment conferences that were held. The following were examined and studied in the preparation of this final report.

   a. AESP Needs Assessment Conference, Huntsville, Alabama, July 1976.

   b. AESP Needs Assessment Conference, Jackson, Mississippi, July 1976.

   c. AESP Needs Assessment Conference, Slade, Kentucky, July 1976.

   d. AESP Needs Assessment Conference, Boone, North Carolina, July 1976.

   e. AESP Needs Assessment Conference, Cacapon, West Virginia, July 1976.

f. AESP Needs Assessment Conference, Greenville, South Carolina, July 1976.

g. AESP Needs Assessment Confernence, Harrisburg, Pennsylvania, July 1976.

These report summaries were prepared by Donna M. Mertens. A sample is included in the Appendix.

10. The 27 Technical Reports issued by the RCC Evaluation Component, 1973 - 1979 were all carefully studied in the preparation of this final report. Their titles are listed in the Evaluation and Research section which also contains an analysis of each report beginning with No. 13.

11. Proposal for Grant Funding Under the Public Telecommunications Service Program, submitted by The Appalachian Community Service Network, May 1980 and April 1981 to the National Telecommunications and Information Administration, U.S. Department of Commerce.

This proposal for grant assistance was submitted at a critical point for ACSN as it sought to complete the network transition from dependence upon Federal sources of income to using operating revenues from cable subscriber fees, course tuition, enrollment fees, the sale of excess uplink and satellite transponder capacity and from private sources of funding.

12. Appalachian Education Satellite Program - Work Statement and Budget, June 1, 1977 - October 31, 1977 submitted to the NIE on May 31, 1977.

This work statement encompassed four basic areas:

oo program service objectives
oo new operations objectives
oo multi-year operational plan
oo recommendations for initiating the AESP plan.

The work statement covered major research questions, major and interim outcome objectives and descriptions of the enabling objective and procedure.

Similar work statements were submitted annually using appropriate titles such as the following item.

13. Proposal to the National Institute of Education for Funding 1980 - 81, submitted September 8, 1980.

Unlike prior operational plans this proposal contained details of ACSN's structure, its business aims for FY 81 and the criteria by which ACSN will judge its performance for the coming year. A copy of sections of this proposal are included in the Appendix.

14. Telecourse Implementation Guide for ACSN Spring Schedule 1982 for College and University affiliates.

This document lists the 10 college credit telecourses that were offered in the Spring of 1982 and provides delivery dates and schedules together with pertinent data about the nature of the courses, student questionnaires, fees, and other pertinent information.

15. Two Types of Printed Brochures Used in 1981 and 1982

    a. Telecourse Utilization Guide for Summer Semester 1981.

    To provide specific information to college administrators about course credit, promotion, recruitment, the ordering of course materials and appropriate faculty assignements to conduct the courses.

    b. Continuing Education and Community Service Programming, Fall 1981 which contained fact sheets describing professional development and continuing education courses, workshops and community service programming for the Fall of 1981.

16. Many small two or three page reports were studied in preparing this report. They include:

    a. The quarterly reports to NIE

    b. The semi-annual reports concerning the ARC contracts.

    In addition the agendas of and the minutes of all the Board of Directors meetings were used. The Board of Directors held its first organization meeting in October 1980 and has held quarterly meetins ever since.

17. Magazine articles that were helpful in the preparation of this report are listed below:

    a. ACSN Personal Growth Programming, SAT Guide, July 1980, pages 98, 99.

    "As a non-profit organization developed to meet community needs, ACSN provides a mix of public service progrmaming." This article describes the scope of the program mix.

    b. ACSN makes headway with National plans by Nicki W. Corson (Associate Editor), CableVision, page 77-80.

    "Take a course in personal finance at your local college, participate in a workshop on consumer education with Ralph Nader as panelist, attend a social workers symposium in San Diego or learn how to do maintenance on your own automobile. Do any of these without leaving your home or taking time off from your job."

    c. The ACSN Gives a Lesson In Pracitical "How-Two" Programming, Satellite Circuit, Jan. 1981, pages 6,7.

"People appreciate the change of pace that ACSN programming offers them."

d. The Appalachian Community Service Network: Building a Bigger Schoolhouse by Jill Marks, TVC East Coast Correspondent, TVC Magazine, December 15, 1980, pages 174-177.

It has been an idea that has developed slowly but this Fall marks a new era in educational programming.

Appendices

A. Certificate of Incorporation

B. Bylaws

C. Cable Affiliate Promotional Material

D. 197[illegible] AESP Needs Assessment Report

E. Tuition Share Plan

F. Cable Marketing Brochure

G. Summer Program Preview

H. Business/Industry Needs Survey

I. Video Teleconferencing Fact Sheet

J. *Satellite Circuit* Article, 1981

K. *Cablevision* Article, 1980

L. *SATGUIDE* Article, 1980

M. *TVC* Article, 1980

N. Appalachia Article, 1981

O. *Venture* Article, 1981

P. General Release, September, 1981

Appendix A

Certificate of Incorporation

DOCUMENT C

OFFICE OF RECORDER OF DEEDS, D. C.
Corporation Division
Sixth and D Streets, N. W.
Washington, D. C. 20001

CERTIFICATE

THIS IS TO CERTIFY that all provisions of the District of Columbia Non-profit Corporation Act have been complied with and ACCORDINGLY this Certificate of INCORPORATION

is hereby issued to the APPALACHIAN COMMUNITY SERVICE NETWORK

as of the date hereinafter mentioned.

Date April 8, 1980

PETER S. B[illegible],
Recorder of Deeds, D.C.

John M. Duty
John M. Duty
Assistant *Superintendent of Corporations*

Government of the District of Columbia
Form RD-C 15
Oct. 1962

J-0129-75

Appendix B

Bylaws

DOCUMENT D

BYLAWS
OF
APPALACHIAN COMMUNITY SERVICE NETWORK

ARTICLE I. OFFICES

The principal office of the corporation is in Washington, D. C. The corporation may have such other offices, either within or without the District of Columbia, as the Board of Directors may determine or as the affairs of the corporation may require from time to time.

The corporation shall have and continuously maintain in the District of Columbia a registered office, and a registered agent whose office is identical with such registered office, as required by the District of Columbia Nonprofit Corporation Act. The registered office may be, but need not be, identical with the principal office in the District of Columbia, and the address of the registered office may be changed from time to time by the Board of Directors.

ARTICLE II. STATEMENT OF PURPOSE AND GUIDELINES FOR OPERATION

The purposes for which the corporation is organized are as follows:

A. To serve and benefit the people of the Appalachian Region, as defined in the Appalachian Regional Development Act, by providing educational, cultural and public service telecommunications programs to the Appalachian Region through a television network utilizing a satellite distribution system and other distributive technologies. While it shall be the primary purpose of the corporation to serve the Appalachian Region, the corporation may also provide such services to other portions of the Appalachian States and the United States.

B. To provide for and conduct, directly or indirectly, the creation, design, development, production, origination, distribution and broadcasting of educational, cultural and public service programs on the basis of priorities and needs identified in the Appalachian Regional Development Act, as addressed by the Appalachian Regional Commission; ascertained through advisory groups and mechanisms throughout the Appalachian Region; and set forth in the policies of the Board of Directors of the corporation. The programs will be made available to all citizens, with an emphasis placed on the needs of underserved populations in rural and nonmetropolitan areas, in a manner as nonduplicative as possible of other public broadcasting systems or the commercial television industry.

C. To exercise all the powers conferred upon corporations formed under the District of Columbia Nonprofit Corporation Act in order to accomplish the Corporation's educational, cultural, civic, charitable and other similar purposes, including but not limited to the power to accept donations of money or property, whether real or personal, or any interest therein, wherever situated.

ARTICLE III. MEMBERS

SECTION 1. As specified in the Articles of Incorporation, the corporation shall have National and Regional Members. The members shall vote by class. The National Member shall have the sole vote in his or her class. The Regional Members shall each have one vote within their class.

SECTION 2. Rights of Members. The members shall have the right to:

(A) Appoint the Directors and the Chair of the Board as specified in Article IV, Sec. 2.

(B) Appoint the President as specified in Article V, Sec. 2.

(C) Amend Article II of these Bylaws.

(D) Amend this Article III.

(E) Amend Article IV of these Bylaws.

(F) Amend Article V. Sec. 2 of these Bylaws.

(G) Amend the FIFTH Article of the Articles of Incorporation and to compel the Board of Directors to adopt any resolution proposed by the members regarding amendment to the FIFTH Article of the Articles of Incorporation and to submit such to the members for a vote.

Amendments to above-specified sections of these bylaws may be accomplished by the affirmative vote of the National Member and the affirmative vote of a majority of the Regional Members. Amendments to the above-specified article of the Articles of Incorporation may be accomplished by the affirmative vote of the National Member and the affirmative vote of two thirds of the Regional Members. The members shall have no rights other than those specified in this Article III.

SECTION 3. Regular Meetings. Regular annual meetings of the Members shall be held at the time and place of the Spring meeting of the Appalachian Regional Commission, without other notice than this bylaw; or at such time and place as the National Member and a majority of the Regional Members shall provide by giving at least 20 days notice of the time and place to all Members.

SECTION 4. Special Meetings. The National Member or any four Regional members may direct the Secretary of the Corporation to call a special meeting of the Members at any time. The person or persons directing the secretary to call a special meeting shall fix the time and place within or without the District of Columbia for holding such special meeting.

SECTION 5. Notice. Notice of any special meeting of the members shall be given at least five days previously thereto by written notice delivered personally or sent by mail or telegram to each member at the member's address as shown by the records of the corporation. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail in a sealed envelope so addressed, with postage thereon prepaid. If notice be given by telegram, such notice shall be deemed to be delivered when the telegram is delivered to the telegraph company. Any member may waive notice of any meeting. The attendance of a member at any meeting shall constitute a waiver of notice of such meeting, except where a member attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. The business to be transacted at, or the purpose of, any regular or special meeting of the members shall be specified in the notice or waiver of notice of any such meeting. Unless otherwise provided, any matter not within the terms of the notice or on an accompanying agenda shall not be considered at the meeting except by an affirmative vote of the National Member and of nine (9) Regional Members.

SECTION 6. Quorum. The National Member and a majority of the Regional Members shall constitute a quorum for the transaction of business at a meeting of the members; but if less than a quorum is present at said meeting, a majority of those present may adjourn the meeting from time to time without further notice. Nothing in this section 6 shall act to decrease the number of votes required for action by the members specified in other sections of these bylaws.

SECTION 7. Compensation. Members as such shall not receive any stated salaries for their services, but by resolution of the Board of Directors a fixed sum and expenses of attendance, if any, may be allowed for attendance at each regular or special meeting of the members.

ARTICLE IV. BOARD OF DIRECTORS

SECTION 1. General Powers. The affairs of the corporation shall be managed by its Board of Directors. Directors need not be residents of the District of Columbia or members of the corporation.

SECTION 2. Number, Tenure and Qualifications.

(A) The corporation shall have seventeen directors who shall be appointed as provided in this Section 2.

(B) The National Member shall be entitled to appoint seven Directors. The directors appointed by the National Member shall serve for a three-year term (except for initial appointments as provided in paragraph (E)).

(C) The Regional Members shall be entitled to appoint, by a majority vote, seven Directors. The Directors appointed by the Regional Members shall serve for a three-year term (except for initial appointments as provided in paragraph (E)).

(D) There shall be three Directors appointed in the following manner:

(1) One Director shall be appointed by the Chair of the Board of Directors of the Southern Educational Communications Association (SECA). Such person shall be the President of SECA or a current member of its Board of Directors.

(2) One Director shall be appointed by the Chair of the Board of Directors of the Eastern Educational Television Network (EEN). Such person shall be the Executive Director of EEN or a current member of its Board of Directors.

(3) One Director shall be appointed by the Director of the National Institute of Education (NIE).

(4) Any director appointed under this Section (D) may be removed with or without cause by the person who, by virtue of office, is entitled to appoint the director.

(E) To assure continuity of management and operations, the terms of the directors, appointed by each class under each of the procedures in paragraphs (B) and (C) above, shall be staggered. Initially, three Directors from each class shall be appointed for a one-year term, two from each class shall be appointed for a two-year term, and two from each class shall be appointed for a three-year term. The initial staggering of the Board shall be determined by the directors chosen under this section drawing for the length of their terms by lot; Provided the director designated as Chair of the Board shall have not less than a two-year term. Thereafter all directors shall be appointed for three-year terms. Any director may be appointed to succeed himself or herself.

(F) In selecting the Board of Directors, the members of the corporation shall insure that the Board of Directors includes individuals who represent the varied interests and concerns of the Appalachian Region, such as education, child development, human services, health and mental health, local and State government, community development, energy and resource development, local consumers of ACSN services, small business, public broadcasting, journalism, the arts and public affairs. At least 12 directors appointed by the members shall be residents of the Appalachian states or shall have a recognized interest in the Appalachian region. Attention shall be given to insuring the representation of different geographical areas of the Appalachian Region. A minimum of one director shall be appointed each from the North, Central and South Subregions of the Appalachian Region as those subregions are identified in Hearings on S. 1513 Before the Subcommittee on Economic Development of the Senate Committee on Public Works, 94th Cong., 1st Sess. 307.

(G) The members, by affirmative vote of the National Member and a majority of the Regional Members shall appoint the Chair of the Board of Directors for a two-year term. A Chairperson may be reappointed for an additional term one or more times. He or she may be anyone of the members of the Board appointed by the members of the corporation. He or she shall have such duties as the Board of Directors shall by resolution of a majority of their number delegate to him or to her. The Chair may be removed at any time, with or without cause, by the affirmative votes of the National Member and a majority of the Regional Members.

(H) The Board of Directors, by majority vote, may select one or more vice chairpersons of the Board to serve for such terms as the Board may designate and to exercise such powers and perform such duties as the Board may from time to time assign them. A vice chair may be removed at any time by majority vote of the Board.

SECTION 3. Regular Meetings. Regular meetings of the Board of Directors shall be held at least once every three months without other notice than this bylaw, at the corporation's principal office or at such other place as the Board shall designate by resolution. The Board of Directors may provide by resolution the time and place, either within or without the District of Columbia, for the holding of additional regular meetings of the Board without other notice than such resolution.

SECTION 4. Special Meetings. The Chair of the Board or any two directors or the President may direct the Secretary of the Corporation to call a special meeting of the Board of Directors. The person or persons directing the Secretary to call any special meeting shall fix the time and the place within or without the District of Columbia for holding such meeting.

SECTION 5. Notice. Notice of any special meeting of the Board of Directors shall be given at least ten days previously thereto by written notice delivered personally or sent by mail or telegram to each director at his address as shown by the records of the corporation. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail in a sealed envelope so addressed, with postage thereon prepaid. If notice be given by telegram, such notice shall be deemed to be delivered when the telegram is delivered to the telegraph company. Any director may waive notice of any meeting. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. The business to be transacted at, or the purpose of, any regular or special meeting of the Board shall be specified in the notice or waiver of notice of such meeting. Unless otherwise provided, any matter not within the terms of the notice or on an accompanying agenda shall not be considered at the meeting except by an affirmative vote of at least ten directors.

SECTION 6. Quorum. A majority of the Board of Directors shall constitute a quorum for the transaction of business at a meeting of the Board; but if less than a majority of the directors are present at said meeting, a majority of the directors present may adjourn the meeting from time to time without further notice.

SECTION 7. Manner of Acting. The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the act of a greater number is required by law or by these bylaws.

SECTION 8. Vacancies. Any vacancy occurring in the Board of Directors shall be filled in the manner by which the past incumbent was appointed. A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office.

SECTION 9. Compensation. Directors as such shall not receive any stated salaries for their services, but by resolution of the Board of Directors a fixed sum and expenses of attendance, if any, may be allowed for attendance at each regular or special meeting of the Board or meeting of a committe on which the director sits; but nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity and receiving compensation therefor. No director may receive any compensation whatsoever, except for expenses of attending board, committee meetings and meetings of corporate staff, without approval of a majority of the board.

SECTION 10. Removal. Any Director may be removed for cause, including but not limited to, failure to attend three consecutive meetings of the Board without sufficient reason, or the existence of a conflict of interest that could impair the effectiveness of the corporation's activities. Removal may be accomplished by an affirmative vote of nine directors.

SECTION 11. Informal Action by Directors. Any action required by law to be taken at a meeting of directors, or any action which may be taken at a meeting of directors, may be taken without a meeting if a consent in writing, setting forth the action so taken, shall be signed by all of the directors.

ARTICLE V. OFFICERS

SECTION 1. Officers. The officers of the corporation shall be a President, one or more Vice-Presidents (the number thereof to be determined by the Board of Directors), a Secretary, a Treasurer and such other officers as may be elected in accordance with the provisions of this Article. The Board of Directors may authorize the appointment of such other officers, including one or more Assistant Secretaries and one or more Assistant Treasurers, as it shall deem desirable, such officers to have the authority and perform the duties prescribed, from time to time, by the Board of Directors. Any two or more offices may be held by the same person, except the offices of President and Secretary.

SECTION 2. Election and Term of Office.

A. President.

(1) The first President of the corporation shall be appointed by the members, the affirmative vote of the National Member and a majority of the Regional Members being required, from a group of four to six candidates supplied to the members by the Board of Directors with an evaluation of their qualifications. All presidents after the first shall be appointed by the Board subject to ratification of such appointment by the National Member and a majority of the Regional Members.

(2) The Board shall enter into a contract with the President for his or her services for a specific term of years. The Board may remove the President at any time as stated in Section 3. The appointment and contract of any President, if that person has once been approved by the members, may be renewed or extended by the Board without further action by the members.

B. Other Officers. All other officers of the corporation shall be appointed bi-annually by the President of the corporation subject to confirmation by majority vote of the Board of Directors at the next regular meeting of the Board of Directors or at a special meeting held for such purpose. Each officer shall hold office until his or her successor shall have been duly appointed and confirmed.

SECTION 3. Removal. Any officer of the corporation may be removed by the President or by the affirmative vote of 12 members of the Board of Directors whenever in their judgment the best interests of the corporation would be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the officer so removed.

SECTION 4. Vacancies. A vacancy in any office because of death, resignation, removal, disqualification or otherwise, shall be filled in the manner prescribed in Section 2.

SECTION 5. President. The President shall be the Chief Executive Officer of the corporation and shall operate, supervise, and control all of the business and affairs of the corporation under policies established by the Board. He or she may sign, with the Secretary or any other proper officer of the corporation authorized by the Board of Directors, any deeds, mortgages, bonds, contracts, or other instruments which the Board of Directors has authorized to be executed, except in cases where the signing and execution thereof shall be expressly delegated by the Board of Directors or by these bylaws or by statute to some other officer or agent of the corporation; and he or she shall perform all duties incident to the office of President and such other duties as may be prescribed by the Board of Directors from time to time. The President shall attend all Board meetings but shall not be entitled to vote.

SECTION 6. Vice-President. In the absence of the President or in the event of his or her inability or refusal to act, the Vice-President (or in the event there be more than one Vice-President, the Vice-Presidents in the order designated by the Board) shall perform the duties of the President, and when so acting, shall have all the powers of, and be subject to, all the restrictions upon the President. Any Vice-President shall perform such other duties as from time to time may be assigned to him or to her by the President or by the Board of Directors.

SECTION 7. Treasurer. If required by the Board of Directors, the Treasurer shall give a bond for the faithful discharge of his or her duties in such sum and with such surety or sureties as the Board of Directors shall determine. He or she shall have charge and custody of and be responsible for all funds and securities of the corporation; receive and give receipts for moneys due and payable to the corporation from any source whatsoever, and deposit all such moneys in the name of the corporation in such banks, trust companies or other depositaries as shall be selected in accordance with the provisions of Article VIII of these bylaws; and in general perform all the duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him or to her by the President or by the Board of Directors.

SECTION 8. Secretary. The Secretary shall keep the minutes of the meetings of the members and of the Board of Directors in one or more books provided for that purpose; see that all notices are duly given in accordance with the provisions of these bylaws or as required by law; be custodian of the corporate records and of the seal of the corporation and see that the seal of the corporation is affixed to all documents, the execution of which on behalf of the corporation under its seal is duly authorized in accordance with the provisions of these bylaws; keep a register of the post office address of each member which shall be furnished to the Secretary by such member; and in general perform all duties incident to the office of Secretary and such other duties as from time to time may be assigned to him or to her by the President or by the Board of Directors.

SECTION 9. Assistant Treasurers and Assistant Secretaries. If required by the Board of Directors, the Assistant Treasurers shall give bonds for the faithful discharge of their duties in such sums and with such sureties as the Board of Directors shall determine. The Assistant Treasurers and Assistant Secretaries, in general, shall perform such duties as shall be assigned to them by the Treasurer or the Secretary or by the President or the Board of Directors.

ARTICLE VI. COMMITTEES

SECTION 1. Committees of Directors. The Board of Directors, by resolution adopted by a majority of the directors in office, may designate and appoint one or more committees, each of which shall consist of two or more directors, which committees, to the extent provided in said resolution, shall have and exercise the authority of the Board of Directors in the management of the corporation, except that no such committee shall have the authority of the Board of Directors in reference to amending, altering, or repealing the bylaws; electing, appointing or removing any such committee or any director or officer of the corporation; amending the articles of incorporation; restating articles of incorporation; adopting a plan of merger or adopting a plan of consolidation with another corporation; authorizing the sale, lease, exchange or mortgage of all or substantially all of the property and assets of the corporation; authorizing the voluntary dissolution of the corporation or revoking proceedings therefor; adopting a plan for the distribution of the assets of the corporation; or amending, altering or repealing any resolution of the Board of Directors which by its terms provides that it shall not be amended, altered or repealed by such committee. The designation and appointment of any such committee and the delegation thereto of authority shall not operate to relieve the Board of Directors, or any individual director, of any responsibility imposed upon it or him or her by law.

SECTION 2. Executive Committee. The Board of Directors may form an executive committee of directors with such powers and duties as the board may determine, composed as the board may determine and with committee members serving terms of any length the board may determine.

SECTION 3. Other Committees. Other committees not having or exercising the authority of the Board of Directors in the management of the corporation may be appointed in such manner as may be designated by a resolution adopted by a majority of the directors present at a meeting at which a quorum is present. Except as otherwise provided in such resolution, members of each such committee shall be directors or officers of the corporation. Any member thereof may be removed by the persons authorized to appoint such member whenever in the judgment of such persons the best interests of the corporation shall be served by such removal.

SECTION 4. Term of Office. Each member of a committee shall serve for such term as is provided by the Board, unless the committee shall be sooner terminated, or unless such member be removed from such committee, or unless such member shall cease to qualify as a member thereof.

SECTION 5. Chair. One member of each committee shall be appointed to chair the committee by the Chair of the Board of Directors.

SECTION 6. Vacancies. Any vacancy in the membership of any committee may be filled by appointments made in the same manner as provided in the case of the original appointment.

SECTION 7. Quorum. Unless otherwise provided in the resolution of the Board of Directors designating a committee, a majority of the whole committee shall constitute a quorum and the act of a majority of the members present at a meeting at which a quorum is present shall be the act of the committee.

SECTION 8. Rules. Each committee may adopt rules for its own government not inconsistent with these bylaws or with rules adopted by the Board of Directors.

ARTICLE VII. CONTRACTS, CHECKS, DEPOSITS AND FUNDS

SECTION 1. Contracts. The Board of Directors may authorize any officer or officers, agent or agents of the corporation, in addition to the officers so authorized by these bylaws, to enter into any contract or execute and deliver any instrument in the name of, and on behalf of, the corporation, and such authority may be general or confined to specific instances.

SECTION 2. Checks, Drafts, etc. All checks, drafts or orders for payment of money, notes or other evidences of indebtedness issued in the name of the corporation, shall be signed by such officer or officers, agent or agents of the corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors. In the absence of such determination by the Board of Directors, such instruments shall be signed by the Treasurer or an Assistant Treasurer and countersigned by the President or a Vice-President of the corporation.

SECTION 3. Deposits. All funds of the corporation shall be deposited from time to time to the credit of the corporation in such banks, trust companies or other depositaries as the Board of Directors may select.

SECTION 4. Gifts. The Board of Directors, or officers as they may designate, may accept on behalf of the corporation any contribution, gift, bequest or devise for the general purposes or for any special purpose of the corporation. In absence of any designation, gifts may be accepted by the persons and in the manner provided in Section 2. for the issuance of corporate obligations.

ARTICLE VIII. BOOKS AND RECORDS

The corporation shall keep correct and complete books and records of account and shall also keep minutes of the proceedings of its members, Board of Directors and committees having any of the authority of the Board of Directors, and shall keep at its registered or principal office a record giving the names and addresses of the members entitled to vote. All books and records of the corporation may be inspected by any member, or his or her agent or attorney, for any proper purpose at any reasonable time.

ARTICLE IX. FISCAL YEAR

The fiscal year of the corporation shall begin on the first day of October and end on the last day of September in each year.

ARTICLE X. SEAL

The Board of Directors shall provide a corporate seal, which shall be in the form of a circle and shall have inscribed thereon the name of the corporation and the words "Corporate Seal. Appalachian Community Service Network".

ARTICLE XI. WAIVER OF NOTICE

Whenever any notice is required to be given under the provisions of the District of Columbia Nonprofit Corporation Act or under the provisions of the articles of incorporation or the bylaws of the corporation, a waiver thereof in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice.

ARTICLE XII. AMENDMENTS TO BYLAWS

These bylaws, except for Articles II, III. IV. and Article V, Section 2, may be altered, amended or repealed and new bylaws may be adopted by a majority of the Directors at any regular meeting or any special meeting, if at least fifteen days written notice is given of intention to alter, amend or repeal or to adopt new bylaws at such meeting; Provided, that Article V, Section 3, may be altered, amended or repealed only be an affirmative vote of 12 directors.

Appendix C

Cable Affiliate Promotional Material

For All TV Viewers
Who Have Been
"Movied" and "Sportsed"
To Death . . .

Now There's An Alternative

ACSN

ACSN
True Programming Diversity

ACSN is America's fastest growing satellite service with college credit telecourses, professional development programs and personal enrichment opportunities.

- A unique service providing *true* program diversity to your system and the best marketability of any satellite service currently available.
- The only service that links cable with the total community – business, professional services, college, municipal agencies, and the homebound.

ACSN gets all segments of your community *re-involved in learning and living!*

And, ACSN is the *best alternative* to over-the-air sitcoms, soaps, movies and sports and more of the same from most satellite services!

ACSN Is Available Exclusively To Cable Television Subscribers

Only subscribers to affiliated cable systems receive ACSN's 64 hours per week of daytime programming, featuring

- **Telecourses**–a variety of college credit undergraduate and graduate courses approved and sought by colleges across the nation.
- **Professional Development Programs**–series geared to continuing education and professional certification for engineers, health care professionals, teachers, lawyers, managers and administrators.
- **Personal Enrichment Opportunities**–for all people who want to pursue new interests and broaden their knowledge of the world around them.

ACSN is a system-supported basic service offering program diversity for your subscribers and potential subscribers.

ACSN Telecourses

A telecourse is a college credit instructional package using video as a unifying thread to create a complete learning system for "non-traditional" students. In addition to the video lessons delivered by ACSN, each telecourse contains the following elements:

- **Study Guide** – provides a step-by-step guide for meeting course objectives;
- **Textbook(s)** – an academic publication in a specific course discipline to expand upon concepts presented in the video programs;
- **Examinations** – measurement of students' learning to assure academic soundness.

Most importantly to you, the participation of a local college in the instructional process means that your system helps local institutions meet their needs in the 1980s.

ACSN Professional Development Programs

Professional Development programs are designed for working people who want to keep abreast of the latest developments in their professions and maintain certification. Professions served by ACSN programming are *engineers, accountants, doctors, teachers, managers, librarians* – hard groups to reach with traditional cable programming!

ACSN Personal Enrichment Opportunities

. . . "Gee, I wish I had more time to learn about. . ."
. . . "I wonder if there's a course I could take . . ."
. . . "If only we could make it ourselves . . ."
. . . "I always meant to find out how . . ."

We've all said these things before, but our *spare* time isn't really spare. Now it can be, with ACSN. Let your subscribers use their time before the television set getting involved in the things they've always wanted to do. ACSN appeals to every demographic, socioeconomic and psychographic strata in your community.

ACSN offers a wide array of personal enrichment programs, as varied as

> "Auto Repair for Dummies" to the "Microprocessor Revolution"; "Photography–Here's How" to "Talking Films," for the more advanced cinematographer; "Blue Grass Banjo–Level One" to "Music Is . . . ," a comprehensive music composition series;

and hundreds more, every week, every month.

ACSN Is The Fastest Growing Satellite Service

Cablevision notes that ACSN is Number 1 in systems and homes gained from December 29, 1980 through June 30, 1981:

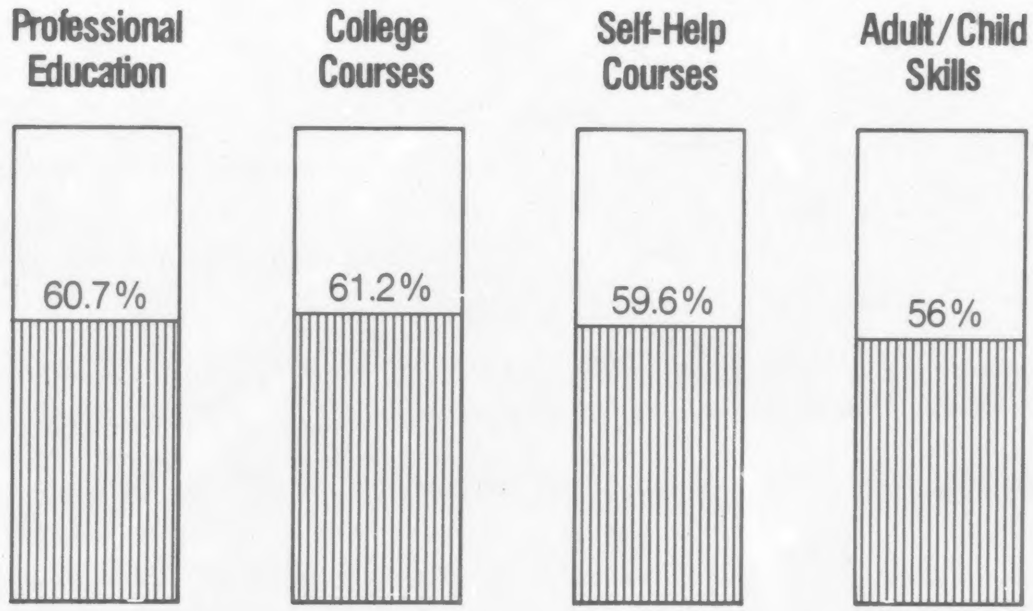
Systems Gained	**Percent Change**
95	+172.72

Homes Gained	**Percent Change**
397,000	+79.40

And, ACSN keeps on growing, now reaching more than **1.5 MILLION** homes in 41 states.

Source: *Cablevision*, July 27, 1981

National Consumer Study Shows "Intense Support" For Cable-Delivered Educational Services



Source: Cable Marketing Management, Consumer Research of Subscribers and Non-subscribers in Cabled Markets. Intense support determined by 7-9 rank on 1-9 scale.

Professional Society Says Continuing Education Is Big Business

The American Society of Training and Development (ASTD) says "continuing professional education of highly educated mid-career adults will become a third tier (in higher education) in addition to undergraduate and professional or graduate work." According to ASTD, continuing education is a $30 to $40 *billion* a year industry in the United States *today*.

And, according to Philip Jones, editor of *Training* magazine,

> more than half of all adult education is tied to work, not only as a means of advancement, but increasingly just for maintaining job efficiency in today's fast-changing world. As have CPA's, lawyers and doctors, many other professionals are demanding a constantly updated state-of-the-art continuing education support system . . . The incredible speed of the obsolescence of knowledge has led to the huge proliferation in adult continuing education.

ASTD reports that "the more money you earn, the more likely you are to take part in continuing education. Likewise, the more schooling you already have, the more apt you are to pursue more."

ACSN puts you in the forefront with the hard-to-reach upscale viewer!

National ACSN Viewer Study Confirms ACSN Value Among Upscale, Hard-To-Reach Viewers

ACSN research of cable viewers in 34 states confirms that ACSN programming is reaching the hard-to-reach cable subscriber.

Sex	
Male	53%
Female	47%
Age	
A25-49	56%
A50+	35%
Household Income	
$20,000 +	61%
College Educated	65%

Additionally, 90 percent of viewers rate ACSN programming very good to excellent!

Source: ACSN Viewer Survey II, May 1981.

Arbitron Study Shows Commercial Television Void In ACSN-Type Programming

Arbitron study of noncable homes shows that one of two greatest commercial television voids is what Arbitron calls "Personal Involvement" programming – the type of programming ACSN delivers everyday:

- Arts and Crafts
- Health/Exercise
- Cooking
- Community Affairs

And, according to Arbitron, "the preference among noncable households, for these program groups suggests that the availability of these programs on basic cable could be one of the most compelling reasons for non-subscribers to add cable."

Source: *Arbitron Cable Update*, June 1981, Vol. 1, No. 1, quoting from Arbitron New Electronic Media Study, 1980.

University of Wisconsin Survey Cites Significant Interest In Educational/Informational Programming

A survey of cable subscribers and non-subscribers in Madison, Wisconsin, shows ACSN-type programming receives all-around high marks:

	Non-Subscribers	**Subscribers**
Professional Development/ Continuing Education	**41%**	**41%**
How-To Programming	**38%**	**43%**
College Courses for Credit	**34%**	**35%**

Non-subscribers preferred the above categories over more professional sports, children's programming, Big Ten college sports. Subscribers chose ACSN-type programming over fine arts, culture, congressional coverage and foreign films.

Source: WHA-TV Subscriber and Non-Subscriber Interest survey, abstracted in *E-ITV Journal*, September, 1981.

ACSN . . . Starts You Learning All Over Again

ACSN brings new life to the expression and new LIFT to your system.

Add ACSN to your system and

- *Improve your lift* potential by providing a unique service that affords your system's subscribers – more importantly, *potential* subscribers – true program diversity.
- *Attract the hard-to-reach* non-subscribers with a service that will make them look again at subscribing to your system.
- *Maintain* your present subscribers by increasing satisfaction with your total system.
- Get your *community involved* in the programming your system offers.

ACSN offers the most marketability of any service available. Here's how . . .

ACSN'S Marketing Approach

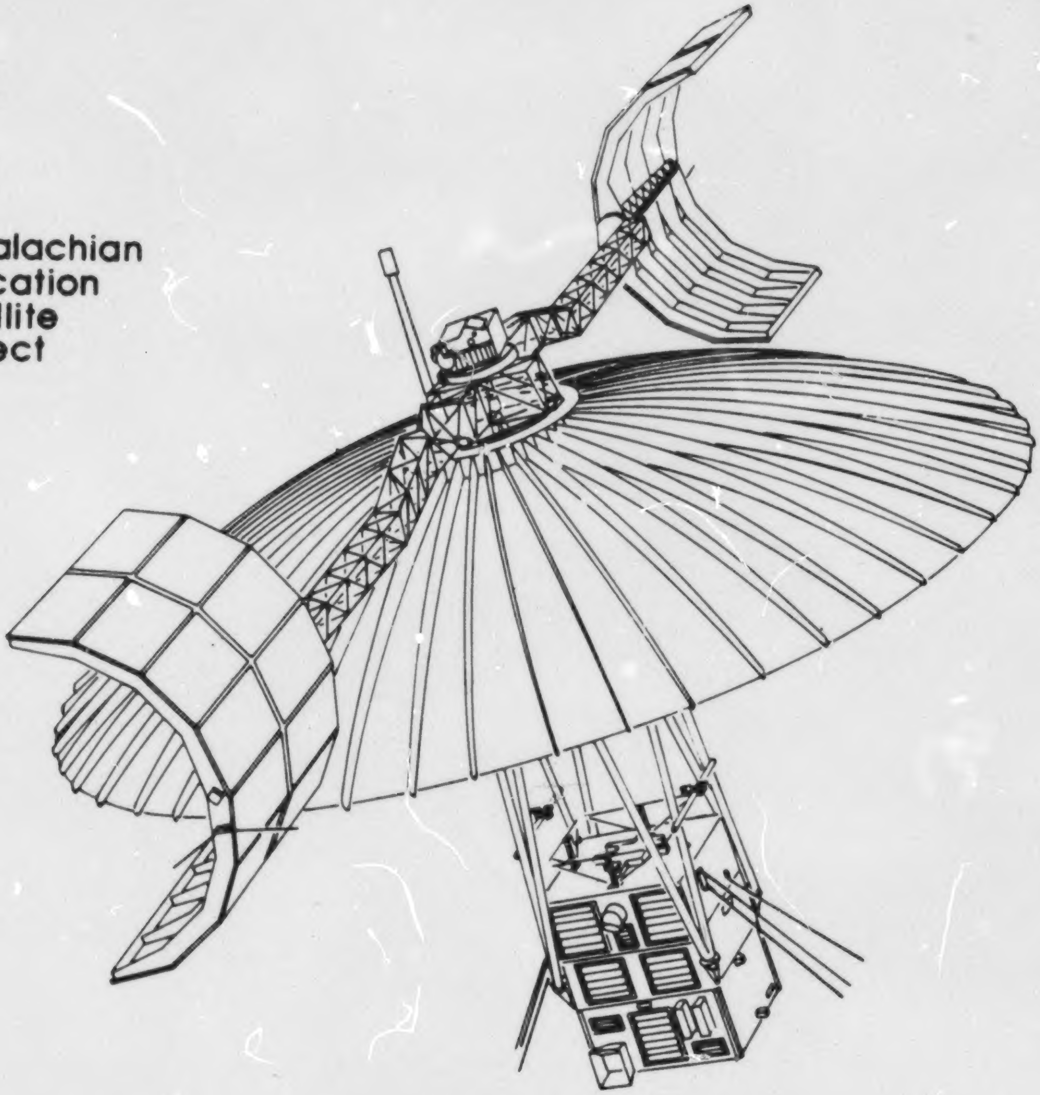
ACSN programs to your total community and provides an on-going marketing program to help you maximize ACSN's total community potential:

- ACSN works with two-year and four-year colleges in your community to create awareness, excitement and enrollments in ACSN-delivered telecourses.
- ACSN's national marketing program generates interest and participation among business and professional segments in *your* area.
- ACSN marketing tools let you localize *your* marketing efforts to community segments most important to *your* system.

Appendix D

1976 AESP Needs Assessment Report

aesp
appalachian
education
satellite
project



AESP Needs Assessment Conference

Slade, Kentucky

July 1976

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AESP NEEDS ASSESSMENT CONFERENCE

Slade, Kentucky

Prepared by

Donna M. Mertens

July, 1976

Acknowledgements

The conference was scheduled and carried out with the assistance of the Kentucky ARC State Office. We wish to thank the staff of the Kentucky Development Cabinet, State Appalachian Program for inviting the participants, arranging the facilities, and presiding over the needs assessment conference.

AESP Needs Assessment Conference in Slade, Kentucky

On May 17, 1976 representatives of the Appalachian Education Satellite Project met with 38 representatives of Appalachia Kentucky to discuss their educational needs. The 38 participants represented the areas of education, medicine and health, business and industry, human resources, and government. The Kentucky meeting was sponsored by The Kentucky Development Cabinet, William L. Short, Secretary, and was held at Natural Bridge State Park in Slade, Kentucky. Following the welcoming remarks, the AESP staff provided an overview of the project that included its history, its current structure, and its future expectations. A question and answer session provided the participants with the opportunity to clarify any questions they had concerning the project.

Following these presentations, the participants divided into small groups based on the subject areas they represented. Needs assessment forms were distributed which had been developed by the Evaluation Component of AESP based on a review of the literature of Appalachian needs. Each form consisted of a list of needs that the participants rated on a seven point Likert-type scale with 1 representing an extremely strong need and 7 representing no need for the people in their region in areas such as continuing education, adult education, inservice education, and undergraduate and graduate education for college credit.

The needs assessment forms also allowed participants an opportunity to specify and rate additional needs that had not been previously listed. After rating the needs, each participant completed a utilization schedule which indicated the days of the week, times of the day, and program format that would be best to reach his/her target population. The participants then identified five priority needs within their subject area, and discussed the evidence to support the severity of the need and the means by which AESP could best serve those needs.

The following is a summary of the results of the Kentucky Needs Assessment Conference. The data on which this summary is based are on file at the AESP Resource Coordinating Center in Lexington, Kentucky. The results of the needs assessment ratings outlined in the following sections includes those needs which received a rating of 3 or less, because the participants utilized the following scale for their ratings:

1 -- extremely strong need
2 -- very strong need
3 -- strong need
4 -- moderate need
5 -- little need
6 -- very little need
7 -- no need

Thus, the following needs are indicative of those that were perceived to be, at the very least, strong needs.

For each need, the mean ($\overline{X}$), standard deviation (sd), and the frequency (n) of response are provided. The mean is a simple arithmetic average, and thus provides information concerning the overall strength of each need. The standard deviation is a measure of variability, and thus indicates whether the individual ratings tended to cluster around one score or tended to spread out over the entire range. The frequency of response is simply the number of people who rated each item.

EDUCATION

Eleven representatives of the educational field rated the needs of the Region. The Board of Education was represented by an assistant superintendent, an instructional superintendent, a teacher consultant, and a school administrator. Two representatives of the State Department of Education and two representatives of the local community colleges were present. A RESA Director, an industrial coordinator for the state vocational program and one unemployed person also completed the needs assessment forms.

Results of Needs Assessment Ratings

The strongest needs identified for each subheading in education are outlined below. Needs that were added to the assessment form are also listed below. No mean rating is given for these additional needs because in most cases, only one person listed and rated the item.

I. Inservice education for elementary teachers ($\overline{X}$ = 1.88, sd = .84, n = 8)

   A. Strong needs

      1. Special education ($\overline{X}$ = 1.55, sd = .69, n = 11)
      2. Career education-exploration ($\overline{X}$ = 1.67, sd = .87, n = 9)
      3. Reading ($\overline{X}$ = 1.73, sd = .91, n = 11)
      4. Consumer education ($\overline{X}$ = 1.82, sd = .75, n = 11)
      5. Oral and written communication ($\overline{X}$ = 2.00, sd = 1.41, n = 11)
      6. Career education-awareness ($\overline{X}$ = 2.00, sd = 1.10, n = 11)
      7. Vocational education ($\overline{X}$ = 2.09, sd = .94, n = 11)
      8. Affective education ($\overline{X}$ = 2.20, sd = 1.03, n = 10)
      9. Mathematics ($\overline{X}$ = 2.22, sd = 1.20, n = 9)
      10. Science ($\overline{X}$ = 2.55, sd = .82, n = 11)
      11. Health education ($\overline{X}$ = 2.64, sd = 1.29, n = 11)
      12. Humanities ($\overline{X}$ = 2.73, sd = 1.27, n = 11)
      13. Social sciences ($\overline{X}$ = 2.91, sd = 1.14, n = 11)
      14. Cultural and community diversity ($\overline{X}$ = 3.00, sd = 1.25, n = 10)
      15. Leisure time education ($\overline{X}$ = 3.00, sd = 1.49, n = 10)

   B. Additional needs

      1. Working with disadvantaged
      2. Working with handicapped

II. Inservice education for secondary teachers

   A. Strong needs

      1. Consumer education ($\overline{X}$ = 1.64, sd = .67, n = 11)
      2. Career education-preparation ($\overline{X}$ = 1.73, sd = 1.10, n = 11)
      3. Oral and written communication ($\overline{X}$ = 1.82, sd = 1.08, n = 11)
      4. Affective education ($\overline{X}$ = 1.90, sd = .88, n = 10)
      5. Vocational education ($\overline{X}$ = 1.91, sd = .94, n = 11)
      6. Special education ($\overline{X}$ = 2.00, sd = 1.00, n = 11)
      7. Reading-remedial ($\overline{X}$ = 2.18, sd = 1.17, n = 11)

8. Mathematics ($\overline{X}$ = 2.46, sd = 1.04, n = 11)
9. Science ($\overline{X}$ = 2.64, sd = .81, n = 11)
10. Health education ($\overline{X}$ = 2.64, sd = 1.29, n = 11)
11. Humanities ($\overline{X}$ = 2.82, sd = 1.25, n = 11)
12. Cultural and community diversity ($\overline{X}$ = 2.90, sd = 1.20, n = 10)
13. Social sciences ($\overline{X}$ = 3.00, sd = 1.10, n = 11)

III. Skills and strategies

A. Strong needs

1. Strategies for motivating students ($\overline{X}$ = 1.46, sd = .69, n = 11)
2. Techniques for improving human relations skills ($\overline{X}$ = 1.60, sd = .70, n = 10)
3. Utilizing diagnostic and prescriptive instruction ($\overline{X}$ = 1.70, sd = 1.06, n = 10)
4. Identification and prevention of potential drop-outs ($\overline{X}$ = 1.70, sd = .95, n = 10)
5. Techniques for individualizing instruction ($\overline{X}$ = 1.82, sd = .87, n = 11)
6. Strategies for teaching fast and slow learners ($\overline{X}$ = 1.91, sd = 1.04, n = 11)
7. Use of problem solving and decision making strategies ($\overline{X}$ = 2.00, sd = 1.00, n = 11)
8. Instructional design and implementation ($\overline{X}$ = 2.09, sd = .94, n = 11)
9. Strategies for teaching culturally different learners ($\overline{X}$ = 2.18, sd = 1.25, n = 11)
10. Strategies for parent involvement in child's education ($\overline{X}$ = 2.18, sd = 1.33, n = 11)
11. Inquiry or discovery techniques of instruction ($\overline{X}$ = 2.27, sd = .79, n = 11)
12. Application of educational and learning theories ($\overline{X}$ = 2.30, sd = 1.06, n = 10)
13. Application of human development concepts in instruction ($\overline{X}$ = 2.40, sd = 1.08, n = 10)
14. Strategies for enhancing creativity ($\overline{X}$ = 2.50, sd = .85, n = 10)
15. Utilization of classroom consultants ($\overline{X}$ = 2.60, sd = 1.08, n = 10)
16. Utilization and interpretation of standardized tests ($\overline{X}$ = 2.73, sd = 1.01, n = 11)
17. Utilization of paraprofessionals ($\overline{X}$ = 2.80, sd = .79, n = 10)
18. Interdisciplinary approaches to instruction ($\overline{X}$ = 3.00, sd = .94, n = 10)

IV. Educational issues

A. Strong needs

1. Teacher evaluation ($\overline{X}$ = 2.00, sd = .67, n = 10)
2. System- and state-wide programs on accountability ($\overline{X}$ = 2.78, sd = 1.09, n = 9)
3. Federal and state legislation pertaining to education ($\overline{X}$ = 2.80, sd = 1.14, n = 10)

V. Special education for the regular classroom teacher

A. Strong needs

1. Characteristics of the learning disabled ($\bar{X}$ = 1.73, sd = .91, n = 11)
2. Characteristics of the gifted ($\bar{X}$ = 1.82, sd = 1.08, n = 11)
3. Identification of exceptional children ($\bar{X}$ = 1.91, sd = 1.14, n = 11)
4. Diagnosis and management of exceptional children ($\bar{X}$ = 2.00, sd = 1.10, n = 11)
5. Characteristics of the emotionally disturbed ($\bar{X}$ = 2.09, sd = .94, n = 11)
6. Academic skills: language, reading, and arithmetic ($\bar{X}$ = 2.09, sd = 1.14, n = 11)
7. Characteristics of the retarded ($\bar{X}$ = 2.27, sd = .91, n = 11)
8. Early childhood education for the mixed handicapped ($\bar{X}$ = 2.27, sd = 1.27, n = 11)
9. Characteristics of the physically handicapped ($\bar{X}$ = 2.40, sd = 1.08, n = 10)
10. Characteristics of the brain damaged ($\bar{X}$ = 2.50, sd = .97, n = 10)
11. Social skill learning ($\bar{X}$ = 2.55, sd = .93, n = 11)

B. Additional needs

1. Skills for visually impaired
2. Skills for the deaf
3. Speech and hearing teacher training
4. Assisting parents in teaching handicapped children

VI. Inservice training for special education teachers

A. Strong needs

1. Diagnosis and management of exceptional children ($\bar{X}$ = 1.73, sd = 1.09, n = 11)
2. Identification of exceptional children ($\bar{X}$ = 1.82, sd = 1.08, n = 11)
3. Characteristics of the emotionally disturbed ($\bar{X}$ = 2.09, sd = 1.04, n = 11)
4. Characteristics of the learning disabled ($\bar{X}$ = 2.09, sd = 1.04, n = 11)
5. Characteristics of the gifted ($\bar{X}$ = 2.09, sd = 1.14, n = 11)
6. Academic skills: language, reading, and arithmetic ($\bar{X}$ = 2.09, sd = 1.04, n = 11)
7. Characteristics of the retarded ($\bar{X}$ = 2.18, sd = .98, n = 11)
8. Early childhood education for mixed handicapped ($\bar{X}$ = 2.18, sd = 1.17, n = 11)
9. Characteristics of the brain damaged ($\bar{X}$ = 2.20, sd = 1.03, n = 10)
10. Characteristics of the physically handicapped ($\bar{X}$ = 2.30, sd = .95, n = 10)
11. Social skill learning ($\bar{X}$ = 2.36, sd = .92, n = 11)

B. Additional needs

1. Skills for visually impaired
2. Skills for the deaf

V. Career counseling

A. Strong needs

1. Career counseling in the curriculum ($\bar{X}$ = 1.60, sd = .84, n = 10)
2. Implementing a career education/counseling program ($\bar{X}$ = 1.60, sd = .70, n = 10)
3. Self-analysis and career decision making ($\bar{X}$ = 2.00, sd = 1.00, n = 9)
4. Resources for career counseling programs ($\bar{X}$ = 2.36, sd = 1.03, n = 11)
5. Meeting the needs of special interest groups ($\bar{X}$ = 2.40, sd = 1.27, n = 10)
6. Job placement services ($\bar{X}$ = 2.46, sd = .93, n = 11)
7. Theories and phases of career development ($\bar{X}$ = 2.80, sd = .79, n = 10)

B. Additional needs

1. Placement and follow-up
2. Skill teaching

VI. Early childhood education

A. Strong needs

1. Positive self-image ($\bar{X}$ = 1.64, sd = .67, n = 11)
2. Parent involvement ($\bar{X}$ = 1.80, sd = .92, n = 10)
3. Cognitive development ($\bar{X}$ = 2.00, sd = 1.33, n = 10)
4. Behavior management for classroom and home ($\bar{X}$ = 2.10, sd = .88, n = 10)
5. Language and verbal skills ($\bar{X}$ = 2.18, sd = 1.25, n = 11)
6. Curriculum and teaching techniques ($\bar{X}$ = 2.20, sd = 1.03, n = 10)
7. Psycho-motor development ($\bar{X}$ = 2.46, sd = .93, n = 11)
8. Social development ($\bar{X}$ = 2.46, sd = .82, n = 11)
9. Kindergarten for 5 year old ($\bar{X}$ = 2.50, sd = 1.17, n = 10)
10. Preschool program for 3-4 year old ($\bar{X}$ = 3.00, sd = 1.41, n = 10)

B. Additional need

1. Using teaching aides in early childhood education

VII. Vocational education

A. Strong needs

1. Use of work-study curriculum for on-the-job training ($\bar{X}$ = 2.44, sd = 1.24, n = 9)
2. Distributive education ($\bar{X}$ = 2.91, sd = 1.04, n = 11)
3. Industrial arts education ($\bar{X}$ = 2.91, sd = 1.38, n = 11)
4. Business and office education ($\bar{X}$ = 3.00, sd = .78, n = 11)

B. Additional need

1. Trades and industrial education

VIII. Information systems

A. Strong needs

1. Development of learning centers ($\overline{X}$ = 2.40, sd = 1.27, n = 10)
2. Planning multi-media learning experiences using information and library sources ($\overline{X}$ = 2.46, sd = .93, n = 11)
3. Accessing local and regional sources of information ($\overline{X}$ = 2.46, sd = .93, n = 11)
4. Utilization of instructional media and technology ($\overline{X}$ = 2.46, sd = 1.21, n = 11)
5. Updating subject matter content ($\overline{X}$ = 2.64, sd = 1.21, n = 11)
6. Use of computerized information retrieval systems ($\overline{X}$ = 3.00, sd = .82, n = 10)
7. Identifying and locating library and other information sources ($\overline{X}$ = 3.00, sd = .89, n = 11)

B. Additional needs

1. Using all agencies' information
2. Use information for long range planning

Results of Priority Needs Identification

The following priority needs were identified:

1. Teacher training in all content areas, especially reading and oral and written communication and development of programs in teaching strategy and technique.

2. Career education kindergarten through twelfth grade.

3. Programs for exceptional children, trainable mentally retarded through gifted.

4. Community education to up-grade and up-date in vocational fields for students, teachers, and citizens.

5. Consumer education training for teachers.

Utilization Schedule

The majority of the educators indicated that programs for teachers could be offered in the late afternoon, early evening, or on Saturdays. Programs for students and other educational personnel could be broadcast during school hours.

HUMAN RESOURCES

Seven representatives of human resources rated the needs of the Region. Four were representatives of local development districts and one represented an area development district human resource program. In addition a community relations specialist and the director of a mental retardation facility completed the needs assessment forms.

Results of Needs Assessment Ratings

I. Adult education ($\bar{X}$ = 2.43, sd = 1.13, n = 7)

  A. Strong needs

    1. How to stay healthy ($\bar{X}$ = 2.00, sd = .82, n = 7)
    2. How to find, get, and keep a job ($\bar{X}$ = 2.29, sd = 1.38, n = 7)
    3. What happens as you get older ($\bar{X}$ = 2.57, sd = .98, n = 7)
    4. How to get help in your community ($\bar{X}$ = 2.57, sd = 2.07, n = 7)
    5. How to solve your transportation problems ($\bar{X}$ = 2.67, sd = 1.63, n = 6)
    6. What are your legal rights ($\bar{X}$ = 2.86, sd = 2.48, n = 7)
    7. How to manage your money ($\bar{X}$ = 2.86, sd = 2.19, n = 7)
    8. How to manage your children ($\bar{X}$ = 3.00, sd = 2.38, n = 7)
    9. How to understand yourself ($\bar{X}$ = 3.00, sd = 1.41, n = 7)

  B. Additional needs

    1. Vocational counseling
    2. Birth control education

II. Prison systems ($\bar{X}$ = 2.00, sd = 1.41, n = 2)

  A. Strong needs

    1. Adult basic education ($\bar{X}$ = 2.00, sd = 1.27, n = 6)
    2. Vocational training ($\bar{X}$ = 2.43, sd = 1.40, n = 7)
    3. College coursework ($\bar{X}$ = 3.00, sd = .89, n =6)

III. Recreation ($\bar{X}$ = 1.67, sd = .58, n = 3)

  A. Strong needs

    1. Developing resources ($\bar{X}$ = 2.00, sd = 1.10, n = 6)
    2. Planning programs ($\bar{X}$ = 2.29, sd = .95, n = 7)

  B. Additional needs

    1. Transportation to recreation centers
    2. Senior citizens recreational activities
    3. Recreation services to developmentally disabled

IV. Social work services ($\bar{X}$ = 1.67, sd = .58, n = 3)

  A. Strong needs

    1. Drug abuse ($\bar{X}$ = 1.43, sd = .54, n = 7)
    2. Family counseling ($\bar{X}$ = 1.67, sd = .52, n = 6)
    3. Child welfare ($\bar{X}$ = 2.50, sd = .55, n = 6)
    4. Supervisory training ($\bar{X}$ = 3.00, sd = 1.90, n = 5)

B. Additional needs

1. Protective services for adults
2. Mental health - mental retardation
3. Day treatment and day training programs
4. Working with the MR in the home
5. The MR as a human being
6. Involving the MR in community

V. Rehabilitation services ($\bar{X}$ = 2.00, sd = 1.00, n = 3)

A. Strong needs

1. Occupational therapy ($\bar{X}$ = 2.17, sd = 1.17, n = 6)
2. Speech and hearing therapy ($\bar{X}$ = 2.17, sd = 1.17, n = 6)
3. Physical therapy ($\bar{X}$ = 2.50, sd = 1.05, n = 6)
4. Social work ($\bar{X}$ = 2.57, sd = 1.27, n = 7)

B. Additional needs

1. Educational services to blind
2. Developmentally disabled
3. Teaching the MR to work
4. Socialization for the MR

VI. Other additional needs

1. Group homes for delinquent boys and girls
2. Juvenile detention centers
3. Foster homes

Results of Priority Needs Identification

The following priority needs were identified:

1. Manpower development training, including job skills training, socialization training, and high school equivalency.

2. Information referral services for all types of community services and agencies, including such topics as health care, nutrition, aging, legal rights, home repair, job counseling, and outreach activities.

3. Services for the developmentally and mentally disabled, including:

    a) Teach the developmentally disabled survival skills and information referral to tell them where to go for help.

    b) Parenting education for parents of the disabled

    c) Inservice training for teachers and counselors to help them deal with the handicapped.

    d) Programming to the general public about handicapped and mentally retarded persons.

Utilization Schedule

The human resources representatives generally indicated that early evening would be the best time to broadcast programs for the majority of consumers. However, special groups such as the elderly and the unemployed could be reached during daytime hours.

BUSINESS AND INDUSTRY

Seven representatives of business and industry rated the needs of the Region. A communications technologist and a community development specialist represented local colleges and universities. A manufacturing representative, a bank president, and a utility company manager were also present. In addition, a representative of a Chamber of Commerce and a local development district communications director completed the needs assessment forms.

Results of Needs Assessment Ratings

I. Supervisory and management training
  A. Strong needs
    1. Communications ($\overline{X} = 1.57$, sd = .79, n = 7)
    2. Labor relations ($\overline{X} = 2.29$, sd = 1.38, n = 7)
    3. Motivation ($\overline{X} = 2.43$, sd = 1.27, n = 7)
    4. Economics ($\overline{X} = 2.43$, sd = 1.51, n = 7)
    5. Human relations ($\overline{X} = 2.57$, sd = 1.72, n = 7)
    6. Leadership ($\overline{X} = 2.86$, sd = 1.57, n = 7)
    7. Labor management ($\overline{X} = 3.00$, sd = .87, n = 7)
  B. Additional needs
    1. Industrial technology
    2. American free enterprise system

II. Employee relations
  A. Strong need
    1. Bargaining unit issues ($\overline{X} = 3.00$, sd = .89, n = 6)
  B. Additional need
    1. Free enterprise economics

III. Labor education
  A. Strong needs
    1. Economics ($\overline{X} = 2.14$, sd = 1.22, n = 7)
    2. Discrimination ($\overline{X} = 3.00$, sd = 1.00, n = 7)

B. Additional need

1. Free enterprise system

IV. Energy, environment and economy

A. Strong needs

1. Acid mine drainage abatement ($\bar{X}$ = 1.60, sd = .89, n = 5)
2. Waste disposal ($\bar{X}$ = 2.33, sd = 1.37, n = 6)
3. Energy conservation ($\bar{X}$ = 2.57, sd = 1.51, n = 7)
4. Effect of national energy policy on regional development ($\bar{X}$ = 2.71, sd = .95, n = 7)
5. Strip mine reclamation ($\bar{X}$ = 2.83, sd = 1.72, n = 6)
6. Regional energy, environmental, and socioeconomic issues ($\bar{X}$ = 3.00, sd = 1.16, n = 7)
7. Mine reclamation ($\bar{X}$ = 3.00, sd = 1.23, n = 5)
8. Socioeconomic development related to energy in a planning sense, e.g. schools, hospitals, and health services ($\bar{X}$ = 3.00, sd = 1.16, n = 4)

B. Additional need

1. Leasing of mineral rights

V. Advice for small business

A. Strong needs

1. Record keeping ($\bar{X}$ = 2.43, sd = 1.27, n = 7)
2. Merchandising ($\bar{X}$ = 2.57, sd = 1.13, n = 7)
3. Government rules and regulations ($\bar{X}$ = 2.57, sd = .98, n = 7)
4. Interpretation of laws ($\bar{X}$ = 2.71, sd = 1.49, n = 7)
5. Advertising ($\bar{X}$ = 2.86, sd = 1.22, n = 7)

VI. Other

A. Strong needs

1. Industrial site planning ($\bar{X}$ = 2.29, sd = .95, n = 7)
2. Federal, state, and local incentives to industry ($\bar{X}$ = 2.29, sd = .95, n = 7)
3. Integrating business and industry with the education system ($\bar{X}$ = 2.43, sd = .98, n = 7)

B. Additional needs

1. Tourism
2. Individual entrepreneurship development
3. Interpreting financial record

Results of Priority Needs Identification

The following priority needs were identified:

1. Training at all levels in the American free enterprise system including free enterprise economics.

2. Short courses, seminars and workshops for small business owners in interpreting records, record keeping, merchandising, advertising, and government rules and regulations. Emphasize the ways that small business owners can cooperate and work together to be more efficient and provide training in entrepreneurship.

3. Dissemination of the latest in industrial technology by emphasizing the latest techniques in occupational safety and providing current information on occupational safety and health federal, state, and local rules and regulations.

4. Supervisory, leadership, and management training for crew leaders and on-line supervisors.

5. Trades and skills training for adults, and improve such training for students.

Utilization Schedule

The business and industry representatives generally indicated that programs for both management and labor could be broadcast in the early evening. A small number of the participants suggested that the programs should be broadcast between 8 am and 5 pm.

MEDICINE AND HEALTH

Seven representatives of medicine and health rated the needs of the Region. The local health departments were represented by a health educator, a nutritionist, and an administrative secretary. A coordinator of a state health program and a community development specialist from a health planning agency also completed the needs assessment forms. In addition, the director of a hospital's staff development and a supervisor of an emergency medical program were present.

Results of the Needs Assessment Ratings

I. Physicians and physician's assistants

  A. Strong needs

    1. Information retrieval and search systems ($\bar{X}$ = 1.67, sd = .58, n = 3)
    2. Respiratory system diseases ($\bar{X}$ = 1.80, sd = .84, n = 5)
    3. Allergic, endoctrine, metabolic, and nutritional disorders ($\bar{X}$ = 2.00, sd = 1.22, n = 5)
    4. Mental illness, personality disorder, and psycho-neurosis ($\bar{X}$ = 2.00, sd = .71, n = 5)

5. Diseases of early infancy ($\bar{X}$ = 2.00, sd = 1.41, n = 4)
6. Problems other than specific diagnostic/symptomatic (e.g. economic, family relationship problems) ($\bar{X}$ = 2.00, sd = 1.22, n = 5)
7. Pregnancy, parturition, and puerperium ($\bar{X}$ = 2.20, sd = 1.09, n = 5)
8. Digestive system diseases ($\bar{X}$ = 2.20, sd = .84, n = 5)
9. Circulatory system diseases ($\bar{X}$ = 2.25, sd = .96, n = 4)
10. Access to specialists ($\bar{X}$ = 2.50, sd = 1.29, n = 4)
11. Neoplasms ($\bar{X}$ = 2.50, sd = .71, n = 2)
12. Signs, symptoms, and ill-defined conditions ($\bar{X}$ = 2.80, sd = .84, n = 5)
13. Congenital malformations($\bar{X}$ = 3.00, sd = 1.63, n = 4)

B. Additional need

1. Family planning

II. Mental health professionals

A. Strong needs

1. Application of behavior modification ($\bar{X}$ = 2.50, sd = .71, n = 2)
2. Family therapy ($\bar{X}$ = 2.75, sd = 1.50, n = 4)
3. Treating alcoholism ($\bar{X}$ = 2.80, sd = 1.30, n = 5)
4. Depression ($\bar{X}$ = 3.00, sd = 1.00, n = 3)

B. Additional need

1. The role of mental health within the community

III. Nurses

A. Strong needs

1. Pediatric cardiac assessment ($\bar{X}$ = 1.17, sd = .41, n = 6)
2. Physical assessment ($\bar{X}$ = 1.33, sd = .82, n = 6)
3. Utilizing health care technology ($\bar{X}$ = 1.60, sd = .89, n = 5)
4. The nurse's role in primary health care ($\bar{X}$ = 1.60, sd = .89, n = 5)
5. Child abuse ($\bar{X}$ = 1.60, sd = .89, n = 5)
6. Pediatric nursing ($\bar{X}$ = 1.67, sd = .82, n = 6)
7. Critical care and trauma nursing ($\bar{X}$ = 2.00, sd = 1.15, n = 4)
8. Drugs ($\bar{X}$ = 2.00, sd = .71, n = 5)
9. Growth and development ($\bar{X}$ = 2.00, sd = 1.55, n = 6)
10. School nursing ($\bar{X}$ = 2.00, sd = 1.55, n = 6)
11. Communication skills ($\bar{X}$ = 2.17, sd = 1.17, n = 6)
12. Alcoholism ($\bar{X}$ = 2.17, sd = 1.17, n = 6)
13. Respiratory diseases ($\bar{X}$ = 2.17, sd = .98, n = 6)
14. Diabetes ($\bar{X}$ = 2.17, sd = .75, n = 6)
15. Preschool children ($\bar{X}$ = 2.33, sd = 1.51, n = 6)
16. Stroke victims ($\bar{X}$ = 2.40, sd = .89, n = 5)
17. Obstetric and gynecologic nursing ($\bar{X}$ = 2.50, sd = 1.83, n = 6)
18. Fetal monitoring ($\bar{X}$ = 2.50, sd = 1.38, n = 6)
19. Lamaze training (X = 2.50, sd = .71, n = 2)
20. Assertiveness training ($\bar{X}$ = 2.50, sd = .71, n = 2)

21. Implications of the patient's cultural background for nursing ($\bar{X}$ = 2.60, sd = 1.14, n = 5)
22. Cardiovascular nursing ($\bar{X}$ = 2.60, sd = 1.14, n = 5)
23. Cancer nursing ($\bar{X}$ = 2.60, sd = .55, n = 5)
24. Instrumentation used in cardiopulmonary care ($\bar{X}$ = 2.67, sd = 1.53, n = 3)
25. Drugs: use and abuse ($\bar{X}$ = 2.67, sd = 1.21, n = 6)
26. Counseling the victim of sexual assault ($\bar{X}$ = 2.75, sd = .50, n = 4)
27. Care of the burned patient ($\bar{X}$ = 2.80, sd = 1.09, n = 5)
28. Maternity nursing ($\bar{X}$ = 2.83, sd = 1.47, n = 6)
29. Family counseling ($\bar{X}$ = 2.83, sd = .75, n = 6)
30. Mental health nursing ($\bar{X}$ = 2.83, sd = 1.47, n = 6)
31. Disaster nursing ($\bar{X}$ = 3.00, sd = 1.22, n = 5)
32. Therapeutic nutrition ($\bar{X}$ = 3.00, sd = 1.09, n = 6)
33. Infection control ($\bar{X}$ = 3.00, sd = 1.15, n = 4)

B. Additional need

1. Parent education

IV. Allied health personnel

A. Dental assistant and hygienist

1. Strong needs

a. Patient education ($\bar{X}$ = 1.25, sd = .50, n = 4)
b. Current advances ($\bar{X}$ = 1.33, sd = .58, n = 3)
c. Basic training ($\bar{X}$ = 2.00, sd = 1.00, n = 3)
d. Restorative dentistry ($\bar{X}$ = 2.75, sd = 1.26, n = 4)

2. Additional need

a. Nutrition education and dental health

B. Radiologic technologist

1. Strong needs

a. Current advances ($\bar{X}$ = 1.33, sd = .58, n = 3)
b. Basic training ($\bar{X}$ = 2.33, sd = .58, n = 3)
c. Radiation safety ($\bar{X}$ = 2.33, sd = .58, n = 3)

C. Physical therapy

1. Strong needs

a. Current advances ($\bar{X}$ = 2.00, sd = 1.15, n = 4)
b. Mobilization of the upper extremity ($\bar{X}$ = 2.33, sd = 1.53, n = 3)
c. Spinal cord injury evaluation and management ($\bar{X}$ = 2.33, sd = 1.53, n = 3)
d. Stress testing and evaluation ($\bar{X}$ = 2.33, sd = 1.53, n = 3)
e. Basic training ($\bar{X}$ = 2.50, sd = 1.00, n = 4)

D. Dietitian

1. Strong needs

    a. Current advances ($\bar{X}$ = 2.25, sd = 1.50, n = 4)
    b. Nutritional implications of cancer ($\bar{X}$ = 2.33, sd = 1.53, n = 3)
    c. Basic training ($\bar{X}$ = 2.50, sd = 1.29, n = 4)
    d. Nutritional implications of stroke ($\bar{X}$ = 2.67, sd = 2.08, n = 3)
    e. Nutritional implications of heart disease ($\bar{X}$ = 3.00, sd = 2.65, n = 3)

2. Additional needs

    a. Nutritional well being of total family
    b. Variations in food choice of adequate diet
    c. Nutritional needs of pregrancy
    d. Patient education

E. Community health

1. Strong needs

    a. Health education ($\bar{X}$ = 1.67, sd = .82, n = 6)
    b. Health services administration ($\bar{X}$ = 1.83, sd = .75, n = 6)
    c. Environmental health ($\bar{X}$ = 2.00, sd = .89, n = 6)
    d. Health programming in the community ($\bar{X}$ = 2.00, sd = 1.00, n = 5)

F. Medical technologist

1. Strong needs

    a. Current advances ($\bar{X}$ = 1.50, sd = .71, n = 2)
    b. Basic training ($\bar{X}$ = 3.00, sd = 0.0, n = 2)

G. Nurse's aide

1. Strong needs

    a. Current advances ($\bar{X}$ = 1.50, sd = .58, n = 4)
    b. Basic training ($\bar{X}$ = 2.25, sd = .96, n = 4)

H. Emergency medical training

1. Strong needs

    a. Current advances ($\bar{X}$ = 1.60, sd = .89, n = 4)
    b. Basic training ($\bar{X}$ = 2.17, sd = .98, n = 6)

2. Additional needs

    a. Care and transporting patients
    b. Cardiac care

V. Consumers

A. Strong needs

1. Link primary care center to professional medical personnel ($\overline{X}$ = 1.00, sd = 0.0, n = 4)
2. Parent health education ($\overline{X}$ = 1.33, sd = .58, n = 3)
   a. Venereal disease ($\overline{X}$ = 1.25, sd = .50, n = 4)
   b. Nutrition ($\overline{X}$ = 1.25, sd = .50, n = 4)
   c. Dental ($\overline{X}$ = 1.50, sd = 1.00, n = 4)
   d. Physical exercise ($\overline{X}$ = 1.50, sd = .58, n = 4)

3. Health services for heart patients ($\overline{X}$ = 1.50, sd = .58, n = 4)
4. Health services for cancer patients ($\overline{X}$ = 1.50, sd = .58, n = 4)
5. Speech and hearing therapy ($\overline{X}$ = 1.50, sd = 1.00, n = 4)
6. Family health screening to detect medical disorders ($\overline{X}$ = 1.60, sd = .89, n = 5)
7. Pre-natal health service ($\overline{X}$ = 1.60, sd = .89, n = 5)
8. Blood pressure health service ($\overline{X}$ = 1.60, sd = .55, n = 5)
9. Consumer health education for children ($\overline{X}$ = 1.60, sd = .89, n = 5)
10. Health services for school children ($\overline{X}$ = 1.60, sd = .89, n = [illegible]
11. Program for the elderly ($\overline{X}$ = 1.75, sd = .96, n = 4)
12. Preventing mental and emotional problems ($\overline{X}$ = 1.75, sd = .96, n = 4)
13. Simple home health techniques ($\overline{X}$ = 1.75, sd = .50, n = 4)
14. Home care during illness ($\overline{X}$ = 1.75, sd = .96, n = 4)
15. Programs for individuals with cancer ($\overline{X}$ = 1.80, sd = .84, n = 5)
16. Innoculation health service ($\overline{X}$ = 1.80, sd = .84, n = 5)
17. Care of sick and healthy children ($\overline{X}$ = 1.80, sd = 1.30, n = 5)
18. Innoculation for school children ($\overline{X}$ = 1.83, sd = .75, n = 6)
19. Programs for individuals with diabetes ($\overline{X}$ = 2.00, sd = 1.15, n = 4)
20. Programs for individuals with heart disease ($\overline{X}$ = 2.00, sd = 1.22, n = 5)
21. Alcoholism ($\overline{X}$ = 2.00, sd = 1.00, n = 5)
22. Dentistry health services for school children ($\overline{X}$ = 2.00, sd = .89, n = 6)
23. Maternal and child health ($\overline{X}$ = 2.00, sd = 1.41, n = 5)
24. Nutrition ($\overline{X}$ = 2.00, sd = 1.00, n = 5)
25. Eye and ear testing for school children ($\overline{X}$ = 2.17, sd = .75, n = 6)
26. Individuals with nutrition problems ($\overline{X}$ = 2.20, sd = 1.30, n = 5)
27. Early childhood health screening ($\overline{X}$ = 2.20, sd = 1.64, n = 5)
28. Drug education ($\overline{X}$ = 2.20, sd = 1.30, n = 5)
29. Mental and emotional problems ($\overline{X}$ = 2.33, sd = .58, n = 3)
30. Pre- and post-natal mothers ($\overline{X}$ = 2.40, sd = 1.67, n = 5)
31. Family reorientation ($\overline{X}$ = 2.50, sd = .71, n = 2)
32. Mental and emotional problems of senility ($\overline{X}$ = 2.50, sd = 1.00, n = 4)
33. Mental and emotional health services for school children ($\overline{X}$ = 2.50, sd = 1.38, n = 6)
34. Post hospital adjustment ($\overline{X}$ = 2.67, sd = .58, n = 3)
35. Physical rehabilitation ($\overline{X}$ = 2.75, sd = .50, n = 4)
36. Immunization program ($\overline{X}$ = 2.80, sd = 1.30, n = 5)
37. Choosing a doctor ($\overline{X}$ = 2.80, sd = 1.48, n = 5)
38. Choosing nonprescription drugs ($\overline{X}$ = 3.00, sd = 1.41, n = 5)
39. Illness and accident prevention ($\overline{X}$ = 3.00, sd = .71, n = 5)

Results of Priority Needs Identification

The following priority needs were identified:

1. Access to specialists for diagnostic purposes and information retrieval.
2. Continuing education for physicians, nurses, allied health personnel, and other hospital personnel, with emphasis on a degree program for nurses, teaching nurses and other health personnel to teach patients upon release from hospital, management training for nurses, problem oriented medical records, child health screening, physical assessment training, and disaster training.
3. Consumer health education with emphasis on child development, nutrition, and dental hygiene by reaching health department clients, Head Start parents, elementary teachers, and parents.
4. Emergency room procedures and emergency medical technician training and update.
5. Training for mental health personnel and speech and hearing therapy.

Utilization Schedule

The participants indicated that public health personnel could be reached from 9 am to 3 pm, and that other health personnel could be reached best in the early evening. Programs for parents and other consumers could be broadcast in the early evening.

GOVERNMENT

Six representatives of government rated the needs of the Region. The local development districts were represented by the coordinator of management services, a director, and an administrator. State government was represented by a public relations specialist and a senator. A planner for county government also participated in the needs assessment.

Results of Needs Assessment Ratings

The strongest needs for each subheading in government, and the needs which were added to the list, were as follows:

I. Local development districts

  A. Strong needs

    1. Economic development ($\bar{X} = 1.67$, sd = .82, n = 6)
    2. Housing planning ($\bar{X} = 1.67$, sd = 1.03, n = 6)
    3. Early childhood planning ($\bar{X} = 2.00$, sd = .89, n = 6)
    4. Educational planning ($\bar{X} = 2.50$, sd = 1.05, n = 6)
    5. Aging ($\bar{X} = 2.67$, sd = .82, n = 6)
    6. Manpower planning ($\bar{X} = 2.83$, sd = 1.94, n = 6)

B. Additional needs

1. Regionalization (regional cooperation)
2. Short and long range programming
3. Project and contract administration
4. Grantsmanship for local officials

II. State, regional, and local planning agencies

A. Strong needs

1. Relations between government and community ($\bar{X} = 1.83$, sd = .98, n = 6)
2. Long range planning ($\bar{X} = 2.33$, sd = 1.97, n = 6)
3. Technical assistance ($\bar{X} = 2.50$, sd = 1.70, n = 6)
4. Change strategies ($\bar{X} = 2.60$, sd = 1.14, n = 5)

B. Additional needs

1. Effective citizen participation-benefits
2. Fiscal planning
3. Parliamentary procedures

III. Community development

A. Strong needs

1. Cultural activities ($\bar{X} = 2.60$, sd = 1.14, n = 5)
2. Contemporary affairs ($\bar{X} = 3.00$, sd = 2.00, n = 3)

B. Additional needs

1. Educational seminar directed toward the juvenile and general public with input from both

2. Seminar for the general public on how to cope with juvenile delinquency

IV. Local government

A. Strong needs

1. Land resource management ($\bar{X} = 1.67$, sd = .82, n = 6)
2. Budgeting and accounting systems ($\bar{X} = 2.83$, sd = 2.14, n = 6)

B. Additional needs

1. Professionalism in a political setting
2. Decision making and decision making tools

Results of Priority Needs Identification

The following priority needs were identified:

1. Orientation of local elected, appointed, or hired officials on powers, duties, and responsibilities of office.
2. Community management including fiscal affairs, utility operation, and government program information.
3. Community improvement including building and housing code, benefits, planning, sanitary landfill, and aesthetics.
4. Community problems including juvenile delinquency and law enforcement.

Utilization Schedule

The participants indicated that most public officials, city managers, and city clerks could be reached during the early evening. County organization personnel, land resource managers, and housing planners could be reached during the business day. Programs for the general public could be broadcast during the lunch hour or dinner hour.

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Appendix E

Tuition Share Plan

ACSN
Appalachian Community Service Network

Tuition Share Plan

As part of our commitment to "make your system shine," ACSN announces a new **Tuition Share Plan** for all affiliated cable systems.

The Tuition Share Plan, beginning January 1, 1982, will provide a $3.00 payment to affiliated cable operators for every paying participant in an ACSN program or course which is viewed on the operator's system. ACSN will continue to collect tuition and fees directly from colleges and other institutional affiliates and will reimburse cable affiliates the $3.00 per student.

Here's how it works for you:

Once you sign a contract to carry ACSN's programming package, we'll work with you to reach new subscribers who have indicated an intense interest in educational programming. We will provide you with an Affiliate Aids Packet, including ad slicks, art work for bill stuffers, sample news releases, brochures and other materials.

ACSN will also make contact with colleges and universities in your area who might like to work with you in offering ACSN college credit programming to your subscribers. Then, when you make contact with the local institution, you can discuss ways that you can work together in the promotion of courses to potential students.

The Tuition Share Plan offers a double opportunity to impact your bottom line. Your assistance in promotion and coordination of ACSN activities in your community can provide general subscriber lift **and** earn you specific tuition refunds.

In addition to the obvious financial benefits which you accrue, your cooperation in this innovative approach to lifelong learning assures your community the long-term benefits of the quality programming ACSN provides.

Corporate Office 1200 New Hampshire Ave., NW, Suite 240, Washington, DC 20036 (202) 331-8100

Appendix F

Cable Marketing Brochure

Appendix G

Summer Program Preview

PREVIEW

ACSN
Summer Programs

ACSN starts you learning all over again!

Advertising The Small Business
2, 30-minute programs

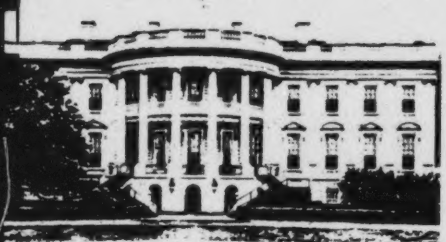
A mini-series teaching small business proprietors everything they need to know about advertising: how to identify potential clientele, determine the advertising message, select the best media form, and communicate the message effectively.

T 3:30 - 4:00 pm, 7/13 - 7/20
W 6:30 - 7:00 am, 7/14 - 7/21

American Enterprise
5, 30-minute programs

Journey through America's past and present with an in-depth look at our economic system from five separate vantage points — land, government, people, innovation and organization.

M 1:30 - 2:00 pm, 5/17 - 6/14



American Government I
30, 30-minute programs

The first of a two-term sequence, this course surveys the historical, philosophical and economic bases of western political systems.

M/W/F 8:30-9:00 am, 6/7-8/13
Sat 6:00-7:30 am, 6/12-8/14

American Government II
30, 30-minute programs

Through an analysis of the three branches of government, students learn about our built-in system of checks and balances; how bills are drafted and become law and, how the government protects our constitutional rights. This is the second half of the two-term sequence.

M/W/F 9:00-9:30 am, 6/7-8/20
Sun 6:00-7:30 am, 6/13-8/15

Arts and Crafts
16, 30-minute programs

Step-by-step instructions are provided for a wide variety of arts and crafts including candlemaking, macrame, decoupage and silkscreening.

M thru F 7:00-7:30 am, 7/5-7/26

A Better Way
24, 30-minute programs

A magazine format covering a wide range of subjects which affect our daily lives including nutrition, health, home gardening and the economy.

T 11:30 - 12 Noon, 7/20 - 12/28
Th 3:00 - 3:30 pm, 7/22 - 12/30

The Bible as Literature
2, 30-minute programs

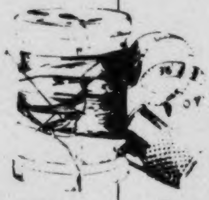
This program weaves together paintings, sculpture, music and drama to re-enact the stories of the Bible.

W 1:30 - 2:00 pm, 5/19 - 5/26
F 1:00 - 1:30 pm, 5/21 - 5/28

Bluegrass Banjo Level I
10, 30-minute programs

Banjo pickers are directly involved with the process of mastering the exercises and songs. Learn such favorites as "Mountain Dew" and "I Saw the Light."

T 11:00 - 11:30 am, 6/15 - 8/17
F 6:30 - 7:00 am, 6/18 - 8/20



Case Studies in Small Business
10, 30-minute programs

Investigate the principles of small business management through a first-hand look at businesses representing a variety of management techniques. Topics common to all businesses —management, marketing and finance — are emphasized.

T/Th 2:30-3:00 pm, 6/15-7/15
Sun 11:30-12:30 pm, 6/20-7/18

Come Alive!
6, 30-minute programs

Feel confident when making a career or life change. This series tells you where to look for unadvertised jobs; offers tips on resume writing; and helps you develop career/decision-making models.

T 6:30 - 7:00 pm, 7/6 - 8/10
Th 3:30 - 4:00 pm, 7/8 - 8/12

A Common Tongue
2, 30-minute programs

See how American and ethnic words and expressions have enriched the English language.

T 10:30 - 11:00 am, 6/15 - 6/22
Th 9:30 - 10:00 am, 6/17 - 6/24

Consultation
19, 30-minute programs

Nationally-known health experts discuss causes, symptoms, treatment and prevention of various ailments in lay terminology.

T 2:00 - 2:30 pm, 5/18 - 9/21
F 10:00 - 10:30 am, 5/21 - 9/24

Cookin' Cajun
15, 30-minute programs

Featuring Louisiana's gourmet-humorist, Justin Wilson, this series shows practical methods of cooking famous Cajun recipes. Quail in a bag, bar-b-que crabs and stuffed cucumbers are among the many delightful dishes served.

T 3:00 - 3:30 pm, 6/15 - 9/21
F 12:00 - 12:30 pm, 6/18 - 9/24

Coping with Kids
12, 30-minute programs &
3, 60-minute seminars

Analyze the discipline and communication problems that adults encounter with young people; learn conflict resolution skills that can be utilized in both classroom and home settings.

M/W 11:00-11:30 am, 7/14-8/2
T/Th 1:00-1:30 pm, 7/15-8/3

Countries & Peoples
10, 30-minute programs

Travel from the deserts of Jordan to the archaeological ruins of Greece. Discover the lasting influence of the Mediterranean region on our own religion, philosophy and culture.

M thru F 8:30-9:00 am, 5/24-6/4

Dial A-l-c-o-h-o-l
4, 30-minute programs

Straight talk about alcohol abuse and how it affects the body.

Sun 7:00 - 8:00 am, 5/30 - 6/6
F 2:30 - 3:00 pm, 5/21 - 6/11

A Different Understanding
5, 30-minute programs

Designed for teachers or parents of learning disabled children, this series illustrates how misunderstanding a child's learning difficulties can cause serious emotional problems. The show discusses improvements in assessment and recent changes in programs and services.

T 7:30 - 8:00 am, 6/15 - 7/13
F 10:30 - 11:00 am, 6/18 - 7/16

Dimensions in Science: Chemistry & Physics
12, 30-minute programs

An exciting series exploring these physical sciences and how they relate to our day-to-day lives.

Th 12:30 - 1:00 pm, 5/13 - 7/29

The Economics Exchange
6, 30-minute programs

Elementary teachers are trained for economics and consumer education; various concepts and strategies are discussed.

T/Th 10:30-11:00 am, 7/6-7/27
W/F 3:30-4:00 pm, 7/7-7/23

Every Four Years
3, 60-minute programs

A conversational study of the American presidency during the mid-twentieth century with particular attention to public expectations and social limitations.

F 10:30 - 11:30 am, 5/28 - 6/11
Sat 9:00 - 10:00 am, 5/29 - 6/12

Fast Forward
16, 30-minute programs

Fast-breaking technological developments are "humanized" by showing how inventions enrich rather than destroy our lives.

Th 2:00 - 2:30 pm, 5/13 - 8/26

Flexible Reading
8, 30-minute programs

This series teaches different reading speeds, methods and strategies for various kinds of reading matter. Emphasis is placed on "real world" materials such as non-fiction books, articles and textbooks.

M/W 10:30-11:00 am, 5/24-6/16
Sun 10:00-11:00 am, 5/30-6/20

Footsteps
30, 30-minute programs

Everyday situations and problems that parents face when rearing children are examined in an entertaining and educational format.

M thru F 7:00-7:30 am, 5/10-6/18

From Jump Street
13, 30-minute programs

This series traces the path of black entertainment from the pace-setting performances of Billie Holliday and Louis Armstrong to the contemporary sounds of Stevie Wonder and George Benson.

T thru F 7:30-8:00 am, 5/18-6/8

The Heart of Teaching
5, 15-minute programs &
1, 30-minute program

Open-ended dramatizations, focusing on the frustrations of teaching, help instructors understand themselves and their responses to their professional lives.

M 6:30-6:45 or 7:00 am, 7/19-8/23
Th 8:00-8:15 or 8:30 am, 7/22-8/26

Home Accessories
34, 30-minute programs

Learn the basic techniques and skills to make pillows, candle holders, macrame pot hangers, tablecloths, and many other home and gift items.

M thru F 6:00-6:30 am, 6/7-7/22
M/W 3:30-4:00 pm, 6/14-9/1

The House of Man
2, 30-minute programs

Reveals the problems that have resulted from the population explosion: housing and food shortages, industrial waste and exploitation of natural resources. Special attention is given to conservation and technological discoveries that can safeguard the future.

M 10:00 - 10:30 am, 5/24 - 5/31
Sun 9:00 - 9:30 am, 5/30 - 6/6

Integration of Children with Special Needs in a Regular Classroom
10, 30-minute programs

This series emphasizes practical techniques for assessing and treating differences in children's learning development.

T 9:30 - 10:00 am, 6/15 - 8/17
F 11:00 - 11:30 am, 6/18 - 8/20

Jobs: Seeking, Finding, Keeping
16, 20-minute programs

Job-finding techniques and strategies are simplified in this career education series.

M thru F 7:00-7:30 am, 8/2-8/23

Learning Through Play
4, 30-minute programs

This series allows teachers, parents, daycare workers and others to observe the development of children through play, from infancy to the pre-teens.

T 6:30 - 7:00 am, 6/7 - 6/29
Th 10:30 - 11:00 am, 6/10 - 7/1

Living Tomorrow
19, 30-minute programs

The latest trends in health, medicine, energy, technology and science are related to our everyday lives.

M thru F 6:00-6:30 am, 7/26-8/19

All times listed are Eastern Standard. Only two delivery times per program are listed. In some cases, a program may be offered more (or less) than twice/week. Check with your local cable system for the delivery times in your area.

Loosening The Grip: A Survey of Alcohol Information
11, 30-minute programs &
4, 60-minute seminars

An exploration of the effects of alcohol on individuals, families and the community. The physical and emotional effects of alcohol; its treatment and prevention, are discussed.

M/W 10:00-10:30 am, 6/14-8/4
T/Th 12:00-12:30 pm, 6/15-8/5

Making It Count: An Introduction to Computers and Their Applications
23, 30-minute programs

A practically-oriented course in computer principles providing a broad overview of data processing concepts. Computer applications and system analysis are key focus.

M/W/F 8:00-8:30 am, 6/14-8/4
Sat 7:30-9:00 am, 6/19-8/7

Marketing Perspectives
30, 30-minute programs

The fundamentals of marketing and its applications in business operations. Special attention is given to marketing variables and research, consumer issues, product concerns, distribution, promotion, government regulations and pricing.

M/W/F 7:30-8:00 am, 6/7-8/13
Sun 7:30-9:00 am, 6/12-8/14

Meaning in Modern Painting
2, 30-minute programs

The works of contemporaries are contrasted with Medieval and Renaissance masters to demonstrate why modern art should not replicate physical reality. Viewers develop an understanding and appreciation of modern painting.

M 11:00 - 11:30 am, 5/24 - 5/31
W 10:00 - 10:30 am, 5/26 - 6/2

Modern Supervisory Techniques
6, 30-minute programs

Aimed at supervisors and middle management, this series teaches the skills and techniques needed to perform daily management responsibilities.

M/W 3:30 - 4:00 pm, 5/24 - 6/9
T/Th 2:30 - 3:00 pm, 5/25 - 6/10

NASA
4, 30-minute programs

This series explores aviation today and tomorrow.

W 1:00 - 1:30 pm, 5/19 - 6/9

Parents as Partners
3, 30-minute programs

A series illustrating how parents can help their children develop reading and thinking skills.

T 1:00 - 1:30 pm, 5/18 - 6/1
Sun 8:30 - 9:00 am, 5/23 - 6/6

Planning a New Business
1, 30-minute program

Professionals offer practical advice on planning and starting a new business or, on taking over an existing business.

T 3:30 - 4:00 pm, 7/6
Sun 10:00 - 10:30 am, 7/18

Poetry Alive
5, 15-minute programs

This series emphasizes the power of communicating through poetry.

M 6:45 - 7:00 am, 7/19 - 8/16
Th 8:15 - 8:30 am, 7/22 - 8/19

Prime Time
4, 30-minute programs

Learning to welcome and enjoy the personal changes that occur during the later years of life are the goals of this program.

Sat 7:00 - 7:30 am, 5/15 - 6/5
Sun 6:00 - 6:30 am, 5/16 - 6/6

Reading Comprehension
10, 30-minute programs

Designed for both teachers and parents, this course provides learning techniques useful when helping children improve their reading ability.

M/W/F 10:30-11:00 am, 8/16-9/6
M thru F 7:00-7:30 am, 6/21-7/2

Simple Gifts: Teaching the Gifted & Talented
12, 30-minute programs &
3, 60-minute seminars

This course introduces the important concepts, methods and techniques concerning classroom instruction of gifted children.

M/W 12:00-12:30 pm, 6/14-8/4

Southern Folklore
12, 30-minute programs

Viewers broaden their appreciation and enjoyment of southern culture when all facets — art, music, folklore, food — are portrayed in these entertaining and informative programs.

M thru F 9:30-10:00 am, 5/24-6/4
T/Th 9:30-10:00 am, 6/8-6/10

Speed Learning — The Art of Reading
9, 30-minute programs

This course explores the entire reading-thinking-learning process. Participants learn how to organize their thinking; focus on subject matter; and, adapt their reading rate according to content for quick reading and learning.

T 8:00-8:30 am, 6/22-8/17
Sun 10:30-11:00 am, 6/27-8/22

Spoonful of Lovin'
5, 30-minute programs

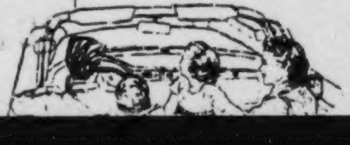
This series covers everything that home day care providers need to know about starting a day care center: childhood development, discipline, first aid and safety and daily activity plans for children.

W 6:30 - 7:00 am, 6/9 - 7/7
Th 11:00 - 11:30 am, 6/10 - 7/8

The Story of Radiation
10, 15-minute programs

What is radiation? What are the biological effects and can we control them? These and other questions about radiation, its safety and uses, are answered in this series.

Th 1:00 - 1:30 pm, 5/13 - 6/10
Sat 8:00 - 8:30 am, 5/15 - 6/12



Strategies of Effective Teaching

8, 30-minute programs

Entertaining presentations acquaint educators with basic strategies for getting students' attention, motivating them and increasing classroom participation.

T/Th 2:30-3:00 pm, 7/20-8/12
Sun 11:30-12:30 pm, 7/25-8/15

Talking Films

36, 30-minute programs

See how movies are made; learn the techniques that writers, cameramen and directors apply for dramatic and special effects.

M thru F 11:30-12 Noon, 5/24-7/13

Tomorrow's Families

30, 30-minute programs

This series explores the implications and responsibilities of parenthood.

M/W 12:30 - 1:00 pm, 6/7 - 9/15
T/Th 8:30 - 9:00 am, 6/8 - 9/16

Voyage: Career/Life Planning

30, 30-minute programs

This series shows actual students in career planning workshops, and individuals in a variety of work settings.

M/W/F 9:30-10:00 am, 6/7-8/20

The Working Series

4, 20-minute programs

Through dramatizations and interviews, young people get a preview of the business world and acquire basic information on getting and keeping a job.

Sat 6:30 - 7:00 am, 5/15 - 6/5
M 1:00 - 1:30 pm, 5/17 - 6/7

The World in Your Kitchen

13, 30-minute programs

This series guides you through the creation of 13 different international dishes.

M 3:30 - 4:00 pm, 7/5 - 8/23
Th 9:30 - 10:00 am, 7/8 - 9/30

Your Diet

6, 15-minute programs

This series explains how specific foods affect our health. Advice on correcting poor health habits is emphasized.

W 11:00-11:30 am, 5/26-6/9
Th 10:00-10:30 am, 5/27-6/10

Real Estate Action Line

19, 30-minute programs

Join real estate consultant H.I. "Sonny" Bloch as he explores all facets of the Real Estate Industry.

T 2:00 - 2:30 pm, 5/18 - 9/21
F 10:00 - 10:30 am, 5/21 - 9/24

ACSN
Appalachian Community Service Network

1200 New Hampshire Ave, NW
Suite 240
Washington, D.C. 20036

Appendix H

Business/Industry Needs Survey

ACSN

Appalachian Community Service Network

ACSN - NEEDS SURVEY

Organization/Division: ______________________________

____

Contact Individual: ______________________________

Position: ______________________________

Telephone No.: ______________________________

The following general questions are designed to help ACSN learn more about industry training and delivery needs. The results will be used to help structure our program offerings and to help increase our ability to provide a program delivery mechanism to industry. All replies will be kept confidential; we will provide a summary of user replies to you on request.

Thank you for your cooperation.

1. What are the primary types of training programs used by your organization? Is a list or catalog of those programs produced by your organization available? What outside sources of training materials, if any, do you utilize?

____

____

____

____

2. Does your organization utilize video-based training programs to any extent? Do you have any existing programs which could be adapted to a video-based format (live or preproduced video delivery)?

____

____

____

____

Corporate Office 1200 New Hampshire Ave., NW, Suite 240, Washington, DC 20036 (202) 331-8100

3. Do existing video-based programs used by your organization have accompanying materials, such as course outlines, tests, etc., included as part of the instructional package?

4. Is your organization assessing or considering any alternate forms of program delivery, such as satellite distribution? If so, what questions do you have regarding such delivery?

5. Regarding your current training program delivery, (a) what type of interaction occurs between participants and content experts, and (b) are participants typically concentrated in a relatively few sites, or distributed in widely scattered sites?

Please forward this form and any additional comments or questions to:

ACSN
1200 New Hampshire Avenue, N.W.
Suite 240
Washington, D.C. 20036

Attention: H. Schlenker
(202) 331-8100

Appendix I

Video Teleconferencing Fact Sheet

ACSN
Appalachian Community Service Network

February 19, 1982

FREQUENTLY ASKED QUESTIONS ON VIDEO TELECONFERENCING

1. **How much does a "typical" video teleconference cost?**

There is no such thing as a "typical" video teleconference. Costs can vary greatly, depending upon delivery formats, ground networks and other characteristics. In this discussion we are specifically addressing one-way video, two-way audio teleconferencing via satellite, and costs have been isolated into key components to arrive at estimates. These components and their estimated costs are:

a. Program Development

As with a conventional meeting, this area includes development of program material, script, graphics, scheduling of participants, moderator, and accompanying written materials for teleconference remote sites; in essence, this area involves all programmatic arrangements necessary to be completed prior to the day of the event. The cost for this component may be very little, if the content and script already exist (such as for some pre-produced training courses), or can require as much as $15,000 to $25,000 or more in planning efforts to develop the program format and content. If pre-produced video portions must be developed for the teleconference to enhance content and add to variety of format, sufficient lead time and funds must be allocated to produce such material.

b. Program Origination

This component refers to the actual facility where the video signal from a teleconference originates. The facility may be a full television production studio if extensive services and production capability are required, or may be a simpler, less expensive teleconference meeting room when extensive studio capability is not required. A full service television studio offers superior picture quality and technical effects capability whereas a teleconference meeting room would generally provide only the facilities required to display persons or documents in a fixed meeting format. The costs for a full production studio normally fall in the range of $400 to $700 per hour for basic services such as control room, cameras, studio, and crew; additional services such as editing are available on a per hour basis. A minimum of four studio hours should be planned for a 90 to 120 minute live video conference. Any highly elaborate set design requires even more set-up time. Costs for a teleconference meeting room are considerably less than the full studio hourly rate, and normally are charged for only the actual elapsed time of the conference.

c. Uplink/Transmission

This component includes the transmission of the video/audio signal from the origination facility (studio or meeting room) through an "uplink" (satellite transmission facility) to a "transponder" (signal relay element in a communications satellite). Representative costs for this service are as follows:

Uplink/Transponder

$500/hour (SATCOM IIIR)
$600/hour (WESTAR I)

d. Network Configuration

The ground 'network' for a video teleconference refers to the locations where the conference signal will be received. Sites must be located in or connected to facilities equipped with satellite receive terminals. The actual site usually requires a TV viewing monitor and a telephone (for interaction with the originating studio). If the conference signal is made available to the public (i.e., to any location such as a cable operator or local television station that wants to receive and retransmit the signal), the conference is referred to as an "open" conference. If the teleconference signal is targeted to a specific audience and delivered to specific locations or meeting sites, the conference is referred to as a "closed" conference. The cost to set up a network is:

- The cost of staff time necessary to contact cable operators/local television stations and find meeting locations. (This cost may be $5,000-$15,000 for a typical conference.)

- Any fees required by a host organization for providing meeting location. (Such fees may range from $100-$1500 per site).

Some teleconference services offer pre-arranged fixed locations for video teleconferences. One such service, the HINET Network offered by Holiday Inn, offers over two hundred locations for teleconferencing. Other ground locations can often be arranged using cable operator or public television stations. Transportable earth stations for use in virtually any location can be rented in most cities at a cost of $800 - $1000 per day.

For advanced audio interaction, an audio "bridge" may be necessary to provide constant two-way interactive audio capability. The cost of this service is approximately $3,000 for a ten-site network, including equipment and telephone charges. It should be pointed out that use of such audio equipment can be used very effectively for high - quality audio-only conferences, and should always be considered as one communications option. If it is necessary for participants to call in questions or responses to a central location in a video conference, a simple collect call-in or use of an '800' number is also possible at a lower net cost.

Finally, if total security of transmission is required, scrambling equipment can be obtained, with costs for this service often in excess of $2000/location.

CONCLUSION: Each of the above components must be carefully reviewed in order to determine the cost of a teleconference. As a general rule, a live video teleconference of 90 to 120 minutes with ten interactive sites will cost a minimum of $20,000 and can cost up to $60,000-$70,000 if extensive pre-production materials, special sets, and pre-set ground locations are used.

2. **What are the factors involved in planning a teleconference and how much time is needed for planning and implementation?**

This question has two parts: (1) one concerning "factors" (some of which have been touched on above); and (2) one concerning time and scheduling.

The key factors in teleconferencing are similar to those in planning any meeting, yet with an essential difference. Adapting a meeting format to television requires planning for production. Consideration must be given to camera shots, timing, sets, lighting, on-camera talent of participants, etc. — basically, how to visualize the meeting and its key ideas. Of course, the meeting must be planned to include a logical format of content, panel participants, and audience involvement.

With regard to a teleconference audience, there are important points to consider. Who are the interested individuals or organizations out in the field? How are the interested user organizations structured? What decision processes do they use and who will make the decision to participate? How autonomous are the remote/local groups? What support materials do they need in order to have meaningful participation and who will distribute these materials? All of these factors affect the development of the teleconference, since local involvement and site participation are essential to the development of a successful conference.

The time required for planning and implementation depends on your objective. For a very simple application between two cities equipped with conferencing facilities, you might decide to hold a teleconference in the morning and be "on" in the afternoon. For a multi-site interactive conference with hundreds of participants more planning and control are essential. Minimum time-lines for developing teleconference components are: (1) a month for developing the script, (2) six to eight weeks to coordinate the network, and (3) one week to plan the production and transmission. These are "typical" time-lines, and often must be increased due to complexity of a particular conference.

3. **How is programming developed, located, and selected?**

Programming is best developed by communications professionals with a proven track record. Avoid the temptation to "do it yourself." The basic rule holds that "you get what you pay for." Programming to suit your special needs can be located by catalog/library searches, contacting producers or by checking with organizations related to specific content areas. Such programming should always be selected with specific goals and target audiences in mind.

4. **What are the benefits to the organization?**

The most frequently mentioned benefit of video teleconferencing is reduced travel expenditure; yet better management and improved internal communications are benefits that can also result from the appropriate use of teleconferencing. Each organization must examine itself or consult a professional to determine potential benefits of this communications tool, and how it can best serve their needs.

5. **How are the sites selected?**

There are two basic criteria in selecting sites:

1. How large is the target audience at each site?
2. How can they be reached in the most convenient manner with a video signal?

Sites are normally connected to or co-located with a satellite receive antenna; as mentioned earlier, this may be achieved by cable distribution, portable downlink equipment, or other means.

6. **What are the criteria for selecting a telecommunications subcontractor?**

First, determine your own organization's resources and needs; then present a consistent statement of your teleconference requirements to potential contractors. As in any solicitation process, carefully assess the experience, approach, suggestions, and proposed costs of the contractors.

As teleconference production is a new field, ask for references and check them out; the good subcontractors will have an established track record.

7. When is a teleconference appropriate and when is another form of communications better?

When you want to meet with a group of persons in the next office, video teleconferencing is not the answer. However, when you want to meet with a large group of remotely dispersed individuals, video teleconferencing may be more appropriate and less expensive than a national conference in one location attended by many representatives in person. Teleconferencing can offer more centralized control of a meeting; on the other hand, if an organization's goal is to teach a precise physical skill, such as operating a metal lath, then a hands-on training session is essential and teleconferencing can augment, not replace, such instruction. As a bottom line, video teleconferencing is most appropriate when used to deliver live or pre-produced video material from one location to many widely dispersed locations, with a planned means for participants to interact with each other and/or a content expert.

8. What other satellite delivery methods are available for delivery of program material?

Video teleconferencing as described in the above questions refers to live delivery of program material, often on a one-time only basis. For other applications where regular delivery of pre-produced programs such as video telecourses is required, other forms of satellite delivery may be appropriate in order to reach user locations on a recurring basis. ACSN, which delivers a daily program schedule by satellite and cable television to over 1.5 million homes, schools, and businesses across the United States, offers an economical means of delivering both video teleconferences and recurring video programs such as telecourses to a wide variety of user locations.

Appendix J

Satellite Circuit Article, 1981

SATELLITE CIRCUIT
January 1981

The ACSN Gives a Lesson in Practical 'How-To' Programming

Dr. Harold Morse, President of ACSN (left), greeting Shirley Hufstedler, U.S. Secretary Of Education at the President's Salute To Education Week, in May 1980.

Since the Appalachian Community Service Network became an independent corporation in October 1980 the public service cable TV programmer has grown appreciably in size and scope. Aided by various government agencies, the organization now delivers educational, self-help and general informational programs to almost half a million subscribers.

ACSN began in the early 1970's as a government project, the network designed to bring educational programming to teachers in rural Appalachia. With the success of the project noted and the emergence of communication satellites imminent, ACSN secured transponder time on SATCOM I. Now, one year after that move, ACSN distributes 64 hours per week of programming to cable systems throughout the country.

ACSN's programming thrust is in three areas: undergraduate and graduate courses for college credit; continuing education and professional development seminars and workshops; and general interest community service programming.

Workshops for professional development have been particularly popular. Recently, such programs as "Living Heart", featuring Dr. Michael DeBakey discussing heart disease and bypass surgery; a consumer education workshop including Ralph Nader as a panelist; and a cardiopulmonary resuscitation seminar have attracted thousands of viewers. The popularity of these shows has been greatly enhanced by the use of toll-free numbers allowing listeners to call in and discuss questions or problems with program leaders.

Teleconferencing as a communications tool has become an important part of ACSN's programming schedule. Among the conferences produced and distributed by ACSN have been live telecasts of the United States Conference of Mayors in Seattle, Washington, last June; a speech by U.S. Secretary of Education Shirley Hufstedler to the annual conference of the American Council on Education in San Francisco; and the very recent "Extension Teleconferencing in the 80's" program for U.S. Department of Agriculture extension workers in some sixty sites throughout the country.

ACSN's credo has always been to assist rural communities in providing helpful instructional tele-

Consumer Advocate Ralph Nader presiding at one of ACSN's frequent workshops.

VIDEO SPORTS NETWORK . . .

FIELDS A WINNING TEAM IN LOCAL TV SPORTS PROGRAMMING

Video Sports Network has come a long way down the cable TV track in its first year of programming. This group of professionals has shown how local sports coverage can be most effectively packaged and produced for home TV viewing via satellite.

VSN began operations in February of 1980 and has been distributing taped playbacks of Auburn University football games on Tuesday nights, and the University of Mississippi on Wednesday nights. In addition to their 22-game football season schedule, VSN offered over 59 hours of basketball to its viewers in the month of December alone, as well as an exciting assortment of other sporting fare.

Combining innovative marketing and imaginative production ideas, VSN, which subleases Showtime's transponder No. 16 on RCA Americom's SATCOM I satellite, has built up a weekly viewing audience of over one million cable television households. With the assistance of four-camera, slow-motion, instant-replay techniques, VSN has proved its ability to bring exciting blow-by-blow coverage with network quality production.

VSN's rapid growth is partly attributable to the network cable company's ability to successfully negotiate 'live' basketball rights with the South Eastern Conference teams. Starting in January, 1981, the network is planning a 7-night a week schedule, featuring mainly 'live' action sports, with some of the best South Eastern, Metro and Sunbelt basketball teams, including Kentucky, Louisville and University of No. Carolina at Charlotte, as well as top-level football contenders. There will also be a sports wrap-up show on Friday nights, as well as frequent special replays of NCAA classics.

Bill Cooke, President of Video Sports Network, explains his own views of the sports explosion and his company's response to a growing demand. "America's fanatical lovel affair with sports is getting more intense every year and the South Eastern region is no laggard in this respect. We have built a loyal, enthusiastic audience and a rapidly responding number of cable system affiliates. We are in a unique service, in one of the most dynamic growth industries in the world. Cable television is growing and sports interest is growing. At VSN, we've simply put the two together."

Video Sports Network, which is headquartered in Columbus, Georgia, has made quite an impact with its coverage of local, state and regional sports events. A particularly popular feature of its programming line-up has been a number of sports talk shows, such as a live, half-hour phone-in show hosted by VSN's Scott Miller, broadcast Monday through Thursday nights. Bill Cooke explains audience response this way: "There is nothing like audience participation—when it comes to sports, everyone likes to think they are part of the action and voicing an opinion relative to his favorite player, team or game, makes a viewer feel he is part of the entire sports fraternity. It is this feeling of belonging to the sports world to say nothing of the VSN 'team' that we try to encourage. Our future growth and audience fidelity may well depend on it."

If 1980 has indeed been as successful a year for VSN as it sounds, the improved coverage for 1981 can hardly fail to spell victory, whichever team you're rooting for!

Bill Cooke, President of Video Sports Network.

World famous heart surgeon Dr. Michael DeBakey conducted one of the special workshops for ACSN's viewers.

vision to meet their individual viewers' needs. Public service programming of the kind ACSN provides requires specialized preparation and customized formatting in order to achieve its objectives. Subjects such as How to raise a Child, Insulating your Home, and Building a Small Business, bring helpful information to thousands of people who can turn this knowledge into practical use with significant benefit to their daily lives.

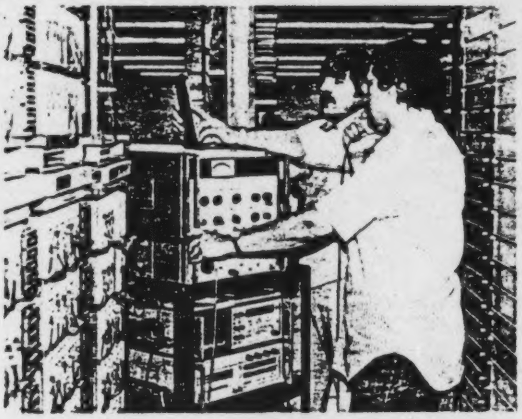
The non-profit network, which leases its time from RCA on Transponder 16 of RCA Americom's SATCOM I satellite, is fast becoming a cable industry institution in its own right. Dr. Harold Morse, president of ACSN, thinks the network's rapid growth is a healthy sign for the future. "People appreciate the change of pace that ACSN programming offers them. What we're learning very quickly is that there is also a place for instructional and self-help programming."

CHICAGO . . . CHICAGO . . .

it's a wonderful CTO

Good service and maintenance are bywords of the RCA Americom satellite private line circuit operation. Installation of customers' circuits, whether they be voice-grade, data or facsimile, is but the beginning of a satisfactory telecommunications system. If the circuits do not perform well and are inadequately serviced, a lot of time, money and effort can be wasted.

RCA Americom's Central Telecommunications Office (CTO), in Chicago, Illinois, is particularly proud of its record, both in technical terms as well as in client relations. With a relatively small crew of seven technicians, one secretary and a manager, this installation services the whole of Chicago and surrounding territory. Each technician is a well-rounded expert, highly experienced in both inside and outside operations. In addition to his expertise at all types of circuitry installation, he is involved in preparation and layout of all original specifications, testing of new and already operating circuits, dealing with other common carrier engineering staff members when necessary and maintenance of all customer circuits in every phase of their operation.



Chuck Melinauskas, Manager of RCA Americom's Chicago CTO (background) checking over a client order with John Chekatis, Communications Technician.

The Chicago CTO is one of a network of seven such installations covering the United States, the others being situated in Atlanta, Camden, Houston, Los Angeles, New York City and San Francisco. Each CTO maintains constant vigilance in the areas of engineering support and maintenance of customer transmission circuitry within their own territory. The high standards of expertise displayed in Chicago are echoed throughout the entire Americom system. In addition to planning and implementation of new point-to-point satellite transmission systems for their customers, each CTO is linked to the Central Customer Service Center at RCA Americom headquarters in Princeton, New Jersey. Customers with questions or problems concerning their circuits can dial a toll-free 800 number and get an immediate response from the Princeton office; the Customer Service Center relays the pertinent location information and other details of the inquiry to the CTO in the specific geographic area involved.

Chuck Melinauskas, Manager of the Chicago CTO, is always eager to expand on his organization's modus operandi. "When this office began operations in October, 1976, we had a crew of four technicians, one manager and just 30 clients. With the expansion of our customer list, today we have about 1900 circuits all told. The demand has involved not only an increase in personnel but an ever-growing need for more sophisticated electronics hardware support. I consider our crew of telecommunications experts the best in the industry, and we also have the finest quality equipment available to help them do the job. Our people have to turn their hand to any emergency that may arise, anywhere in the territory at any time of day." Chuck adds with conviction, "In a high[illegible]mpetitive business such as this, one cannot affo[illegible]be anything less than first class in every area of technical advice, service and support."

Chuck amplified the truth of his hardware claim when he added, "We have installed the very best components to interface with both our own as well as other manufacturers' equipment at the CTO as well as at the client end. Upon completion of the initial installation, by use of a tone oscillator and other equipment, a circuit acceptance test is conducted to ensure that all interface components are working properly. Not until the tieline end-to-end testing is satisfactorily completed, is the system turned over to the client for their testing and approval. Any questions can readily be acted upon by the client's ready access to the toll-free 800 number.

"Our back-up system also includes signalling modulators, multiplexers, companders and echo cancellers. Echo cancellers, which help to eliminate the old problem of 'clipping' and echo on satellite voice-grade circuits, are now standard equipment on all new installations. In addition, we have five testbands for monitoring and every customer is wired into our test equipment. We can therefore provide a reliable, daylong control and repair service, seven days a week. This has become an essential part of our overall customer service operation."

With such a highly integrated and professional organization to rely on, one might consider that Chuck Melinauskas' life is just routine. Chuck, however, will quickly dispel this notion. "We maintain a state of constant vigilance. Our customers come first and we have a responsibility to perform on the highest level of service at all times. This means keeping abreast of improved technology and ahead of the market on the human relations level. Without a large dose of both these ingredients, we would be unable to declare with such firm conviction—'We are the best' in the business"!

Appendix K

Cablevision Article, 1980

ACSN Makes Headway With National Plans

By Vicki W. Corson, Associate Editor

Take a course in personal finance at your local college, participate in a workshop on consumer education with Ralph Nader as a panelist, attend a social workers' symposium in San Diego and learn how to do maintenance on your own automobile. Do any or all of these without leaving your home or taking time off from your job. Just sit down in front of your television set and tune into the Appalachian Community Service Network (ACSN). To borrow a phrase from a BASF tape commercial, "Never heard of us? You will."

The Appalachian Community Service Network is an off-shoot of the Appalachian Regional Commission (ARC), a quasi-governmental agency that promotes economic and social development in the Appalachian region. ACSN was established in September, 1979, to expand the accomplishments of the Appalachian Education Satellite Program (AESP), a joint experiment of the ARC and the National Institute of Education, "to demonstrate the feasibility of meeting community service needs of rural Appalachia via satellite communications." ACSN meets the community service needs with programming in four areas: college-level instruction; workshops and seminars; teleconferencing; and general interest community features.

The sojourn into Appalachian communities began with NASA's experimental ATS-6 satellite. After five years of transmitting public service programs to over 125 rural communities, the experiment was deemed worthy of further support. Its future cemented with the creation of ACSN. As the ATS-6 satellite retired, ACSN began transmitting on various transponders on RCA American Communications' Satcom I satellite. Finally finding a home with Showtime on transponder 16, ACSN began with 22 and one-half hours of programming per week, Monday through Friday, 7:00 to 11:30 a.m. By the end of this month, ACSN will have expanded its programming to 35 hours per week, including Saturday and Sunday, from 7:00 a.m. to 12:00 p.m. The contract with RCA allows for 70 hours per week. ACSN plans to expand to 60 hours, using evening hours, as well as daytime hours, for broadcast services.

With its satellite uplink in Lexington, Kentucky, ACSN's ten-meter antenna transmits programming to 28 cable systems and eleven receive-only terminals throughout the 13 Appalachian region states serving 250,000 subscribers. However, with satellite transmission, ACSN can serve any cable system in the United States, and currently plans to add 25 systems to its network come summer. "Our goal is to have one million subscribers by the end of 1980," says ACSN spokesman Dave Buckingham.

As ACSN moves out of its role as an extension of a federal agency to that of a non-profit organization (which ACSN is now in the process of negotiating), it intends to broaden its horizons to include cable systems throughout the country. Buckingham says ACSN's goals are to become a national network, to develop credibility with cable operators as a program supplier, to establish a model of self-support, and to maintain its link with Appalachia while expanding into other states.

"Our goal is to have one million subscribers by the end of 1980," says ACSN spokesman Dave Buckingham.

ACSN usually makes contact in a community with an educational institution, but also works with hospitals, city mayor's offices—any institution that is involved with community interests. In Alabama there is an organization called TAROG (Top of Alabama Regional Council of Governments). It is TAROG's job to ascertain community needs and seek out or develop ways to meet those needs. After contact is made and interest aroused, ACSN proceeds to contract with the local cable operator for obtaining the satellite programming.

Oft times, especially in rural communities, ACSN has to install equipment in order for the systems to receive the programming, either in the way of an earth station, or via modifications to existing facilities. Currently, ACSN has budgeted $150,000 to provide equipment needed by cable systems. The ARC also has funds available from which the Appalachian communities can draw in order to receive the satellite programming. The cost to the cable operator is $0.01 per subscriber per month for independent companies, or a maximum of $250 per month, or $0.01 per subscriber per month, or a minimum of $250 per month for MSO affiliated companies.

With all systems set to go, ACSN finds someone in the community willing to coordinate all the local interest groups (schools, city government, hospitals, police and fire stations, etc.) and keep them interested in the programming. The process of making contact in a community and coordinating the interest groups is handled by the director of regional operations, Dr. Mike Boyle and regional directors Alice Backman, Wylie Wood and Frank Peto and their many state and community coordinators. Many of these people were originally involved in the AESP experimental project and stayed on after ACSN was established.

The Educational Thrust

The programming offered by ACSN is centered around the four basic formulas mentioned earlier, but the thrust of ACSN's programming is geared toward higher and extended education. "We like to link into the communities' local colleges or universities and have them offer credit for the courses," explains Buckingham. "We don't offer our programs as an alternative to the local institutions, rather in conjunction with existing programs."

Working within the framework of the local college or university, ACSN is there to fill in gaps, to reach the nontraditional student, people unable to attend college on a structured basis.

Thus, ACSN is able to reach the housewife with small children, the volunteer fireman with a full-time job, the doctor or nurse with little time to spare, among others.

Currently, there are over 50 institutions of higher education throughout the United States that offer courses through ACSN's satellite program distribution. After course approval from department heads, most of the colleges and universities in communities receiving the programming, offer credit. ACSN delivers complete courses to the universities and colleges, including the video, the printed materials, tests and evaluations. The institution need only contract with ACSN to grant credit for certain courses to students in their coverage area, register the people for the courses and collect tuition for providing the programming package.

The programming packages are assembled at the program operations center in Lexington. Dr. Nofflet Williams is the director of the operations center, he coordinates programs in conjunction with the university of Kentucky. Cathy Hensley and Rick Falkner, members of Dr. Williams' staff are working on a proposal for NTIA's "Dispersed Users Satellite Programs." The program is administered by the Office of Telecommunications Applications with its primary objective to provide risk capital to wholesalers of public telecommunications services for bulk rate buyers followed by resale of those services to public service users at "affordable rates." The wholesaler is to provide one-way video and two-way audio services delivering educational, training, social and administrative services to widely dispersed public service agencies.

In its spring program guide, ACSN is offering courses such as "Teaching the Young Handicapped Child," "The Growing Years," "Personal Finance," "It's Everybody's Business," "Freehand Sketching," and "Designing Home Interiors."

Besides undergraduate and graduate level courses, ACSN offers programming which can provide continuing education credits and certification through participation in seminars and workshops. (As part of an upcoming consumer education workshop, Ralph Nader will appear as a panelist, and there will be a toll-free number for viewers to call in and ask Nader questions.)

An extremely popular workshop already offered was on cardiopulmonary resuscitation (CPR). This workshop was conducted in conjunction with the local chapters of the American Heart Association. Participants in the workshop viewed the CPR tapes on television and then attended a group session where they practiced on mannequins, using the knowledge they'd received from the program. It was a multi-session workshop and participants who attended and successfully completed all the sessions were awarded CPR certification.

Another widely-viewed seminar was "The Living Heart." Heart specialist Dr. Michael DeBakey from Baylor College of Medicine in Houston, discussed cardiovascular disease. The seminar included film clips of Dr. DeBakey doing by-pass surgery. A toll-free number for viewers was provided. A special education instructor from Tupelo, Mississippi, Kay Whitehead, said she was "real impressed" with the DeBakey seminar. She said there was much she didn't understand, but "where else would you have the chance to sit down and talk to such a doctor and find out answers to your questions? It's much better than reading about it in a book."

Staff members Cathy Hensley and Rick Falkner working on NTIA's proposal for "Dispersed Users Satellite Programs."

Noted heart specialist Dr. Michael DeBakey appeared on an ACSN workshop to discuss the prevention of heart attacks.

The third area of ACSN programming is teleconferencing. Already carried live via satellite were sessions from the National Association of Social Workers Symposium in San Diego and the American Nursing Association convention in Hawaii. Nurses received an hour of certification for watching the seminar and then answering a questionnaire. The next scheduled teleconference will be a 90-minute session on "Videodisc and Education," from the Association for Educational Communications and Technology convention held in Denver April 23. In June, the National Mayors Conference will be telecast live from Seattle. Plans were recently finalized for teleconferences from the Departments of Transportation, Education, Health and Human Resources, but dates have not yet been established.

ACSN's last area of programming is relatively new—general community interest. "Not much has been done in this area," notes Buckingham, "but we're tracking down new sources for it." Buckingham explained this area does not yet serve a specific purpose, just a general one. He says the Department of Energy and the old Department of Health, Education and Welfare have many series films that can be shown. In particular, he referred to HEW's *Footsteps* series that deals with child development and family interaction.

Programming resources are varied and numerous. In addition to the more than 50 colleges and universities and the federal government agencies, ACSN's programming resources also include media organizations (Agency for Instructional Television, AIMS Instructional Media, Inc.), film companies (McGraw-Hill Films, Films, Inc., Film Communicator), business organizations (Small Business Administration, Professional Development, Inc.), and the list continues.

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"Hazardous Liquid Spills," one of several workshops for firefighters, has already helped avert a disaster in one Mississippi community.

The Community Response

Response to ACSN's satellite program thus far has been positive: witness the number of educational institutions participating and the organizations supplying programming. But what about the community response? Opal Melvin, an ACSN representative from Northeast Mississippi Junior College, Booneville, Mississippi, says that response in her area encompassing five counties in northeast rural Mississippi, has been tremendous. Many of the communities don't receive cable, she says, so the college tapes programs and then sets up their own workshops on campus. She said that over 100 volunteer firemen showed up to view the workshop for firefighters and 189 registered for the "Teachers Values" workshops that were shown in February. "It's one of the greatest programs we've ever been involved with here at the junior college because it reaches so very many people."

Kay Whitehead also said that "We have a lot of interest here, especially among the regular classroom teachers." She says the course "Teaching Young Handicapped Children" was well received because it gave teachers who had never dealt with handicapped children a good understanding of them. Another course, "Coping with Kids," was well-received as it not only gave teachers a "new outlook on dealing with problem children at school, but it was information that could be extended into their own homes."

Cable's Response

Cable system operators have also had good response to ACSN programming. Harold Tisdale from Warner Cable of Kingsport, Tennessee, said that an ACSN representative spoke to the Lion's Club (of which he is a member) and he said "there was overwhelming acceptance of the programming. They were really enthusiastic. We've had people call up wanting to receive the programming who don't even receive cable," he said. "Some communities have it and now everybody wants it," he claimed.

Earl Haydt, Pennsylvania regional manager for American Television and Communications Corporation (ATC) and manager of Berks TV Cable Company, is enthusiastic about the program. Haydt says Dr. Ronald Iveson, director of telecommunications for Wernersville State Hospital heard about the program and contacted ACSN. Iveson was interested in programming that would help patients get back into the "mainstream," along with training programs for the staff. Berks TV Cable Company has five hospitals in its service area and Dr. Iveson is on a five-hospital committee. ACSN, the cable company and the hospitals worked out an interconnect program between the hospitals and the schools and the response has been tremendous. "I was really impressed with the complete enthusiasm of the medical profession," Haydt said. "Now everybody is getting excited—the city councils, the firemen, police, school district—everybody," says Haydt.

ATC's manager of community programming, Paul Braun says that community programming is very viable programming for cable and ATC's involvement with ACSN was just "a natural course for us." ATC is supportive of the project and carries it in its Reading, Columbus and Birmingham systems with plans to carry it in its Lynchburg (Virginia), Rochester and Kansas City systems.

After glowing responses from users and cable operators that ACSN has received during its infancy, what will the future bring? ACSN's Executive Director Dr. Hal Morse says that what started as an experiment is now a reality. "People are achieving a common goal utilizing communications technology. Television is much more important than just an entertainment medium. Its potential hasn't even been scratched." Wylie Wood, regional director for Mississippi, Alabama and Tennessee says, "I think ASCN will be very useful in the future, especially with the energy situation. It's going to take time, but with promotion from news organizations, and because of expanding cable systems, more people will be exposed to it, and it will be more successful."

Dr. Hal Morse (left to right), ACSN executive director, with Rob Shuman, deputy director of network operations, and Dave Buckingham.

"As we upgrade existing systems," says Braun, "you'll be seeing ACSN programming in more of our systems. Pound for pound, ACSN is just as valid a user of channel space as are *Nickelodeon* and ESPN," says Braun, a statement reiterated by Trygve Myhren, ATC's senior vice president, marketing and programming.

Haydt sums up ACSN fairly succinctly. "I don't think they know what a dynamic service they have. The course material is excellent, the satellite delivery system is flawless, taping of the programs for later use is a kind of personalized service. The whole program is just too damn good to be true, but we know it's true because we have it." **CV**

Appendix L

SATGUIDE Article, 1980

PERSONAL GROWTH PROGRAMMING

OBTAINING COLLEGE CREDIT

College courses are just the beginning. Unique to the ACSN programming service is its tie-in with institutions of higher education to provide credit to students participating in courses offered through ACSN...but it doesn't stop there.

As a nonprofit organization developed to meet community needs, ACSN provides a mix of public service programming. Working jointly with local communities to ascertain community needs and develop programming to meet these needs, ACSN offers everything from credit courses for engineers, educators, nurses and managers to self-help programs on building a small business, raising a child, insulating a home, and saving a life. Other specialized programming is available for senior citizens, emergency medical and volunteer police personnel and continuing education credit for professionals.

> *"...this campus is as close as your television set."*

College credit is at your fingertips when you want it. Universities across the country offer courses covering a broad range of topics; these can be brought into homes with a variety of subjects from energy to art. There are assignments and tests like any other college program, but this campus is as close as your television set.

COMMUNITY SERVICE PROGRAMMING

Major program categories are developed by ACSN based on continuing surveys of community and cable interests. In developing this service, local community advisory boards assist ACSN in determining program objectives and focus.

Informational or community service programming is designed to provide timely information on topics of interest to consumers. Subject areas include: energy, inflation, the economy, rearing children, job promotion, aging, environment, recreation, health, science, family, arts, and travel. ACSN's children's program, "Rebop", a multiple award winning series funded by the Department of Health, Education and Welfare, serves as a shining example of quality programs available.

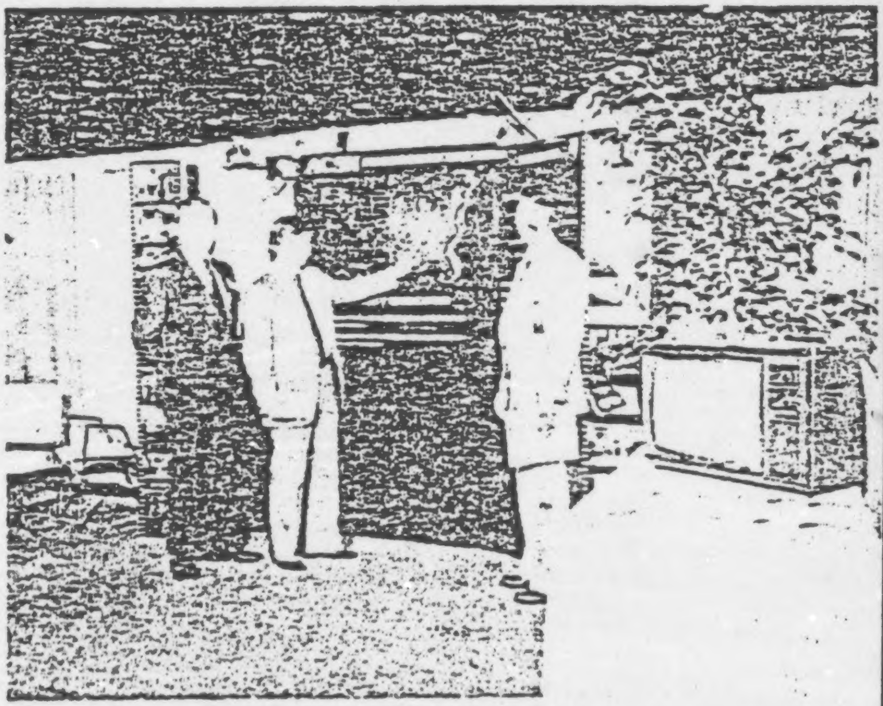
ACSN's programming, which is designed to be noncompetitive with PBS and commercial television, reaches and serves specialized and/or underserved audiences with increased program diversity and frequency. Emphasis is given to programs for persons living in nonmetropolitan areas.

> *"...local community advisory boards assist ACSN in determining program objectives and focus."*

Of special interest is the availability of loans for CATV services or facilities which qualify as community facility loans through the United States Department of Agriculture, under the consolidated Farm and Rural Development Act.

WORKSHOPS AND SEMINARS

Workshops are designed to provid timely information or training for specific groups, and topics have ranged from teaching the handicapped to small farm management. Workshop content is planned with experts at the federal, state and local levels who appear on the programs to answer questions on a toll free call-in system. Curriculum materials developed for the workshop are made available Each program area represents the widest cross section of national expertise, which is not drawn from any particular geographical section of the country.



Dr. Harold Morse, Executive Director of ACSN, Rob Shuman, Deputy Director, and Dr. Ralph Malvick, Programming Director, explain the expanding and unique television network at the National Cable Television Association convention. The convention was held in Dallas, Texas, in May.

Continued on Page 9

Continued From Page 5

ACSN ASSISTS IN HOSPITAL STAFF TRAINING

With the establishment of the ACSN service, and through an in-house television system at the Wernersville State Hospital in Pennsylvania, hospital employees can now pursue their education goals without ever leaving the hospital.

Through this system, several television studios around the country and locations set up with portable equipment can be tied together in a conference type hookup. With the use of telephones during broadcast, the student or viewer can participate in the broadcast.

"We find ACSN very appealing from a very simple standpoint," commented Dr. Ron Iveson, Director of Telecommunications of the institution. "For only $7 per month, we can provide staff development and patient training without realizing the expense of time off the job or exorbitant training fees."

HOW DO COLLEGE COURSES VIA TV WORK?

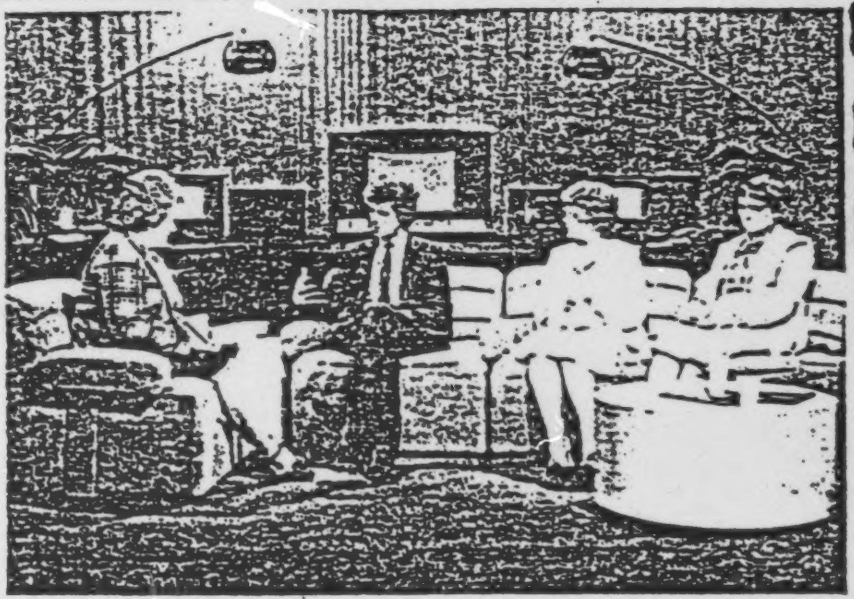
Telecourses involve taped and live television broadcasts along with a textbook, study guide and administrators manual. The study guide includes individual, group and field-based assignments to accommodate both home-based and classroom instruction. Live seminars provide a means of interacting with the instructor and an opportunity to question visiting experts and practitioners, through the use of toll-free telephone lines.

Persons participating in the telecourses at home meet at a central location (usually a regional institution) three to five times during the semester for required activities and testing. Students meeting at a community site view an hour-long televised program and take part in two hours of on-site learning activities each class session.

WHERE THE ACSN CONCEPT BEGAN

Designed to test the effectiveness of a satellite system in delivering graduate course's in reading and career education to Appalachian educators, the Appalachian Education Satellite Program (AESP--parent to ACSN) began broadcasting in 1974 as an experimental closed-circuit network. Expanding in 1977 from 15 receiving sites in eight states to 45 receiving sites in 13 states with receiving sites sponsored by local educational cooperatives, community colleges, and universities, AESP provided a vital link with local communities for the selection, development, and delivery of programs.

Program development was based on needs assessment information secured at the local, state, regional, and national levels. Surveys of client groups, local advisory councils, and community leaders provided information to assist in program selection. Over 50 institutions of higher education in Appalachia offered credit for AESP courses.



Live telecasts over ACSN brings experts into the viewers' home. Students/viewers often interact with program panelists via ACSN toll free telephone lines.

AESP was managed by the Appalachian Regional Commission, Washington, D.C. The center for program development and uplink facilities was located at the University of Kentucky, Lexington, Kentucky. Program development also occured at selected resource centers and resource sharing among institutions was a strength of the project.

On October 15, 1979, ACSN initiated programming on RCA's Satcom I satellite. This conversion from a NASA supported satellite to a commercial satellite permitted access to cable systems nationwide. Located on transponder 16 and aired daily from 7:00 a.m. to 12:00 noon EST, ACSN offers 35 hours of programming a week.

Although satellite distribution is the most cost-effective method of distribution, open-air broadcasting, tape delay and bicycling of video tapes to surrounding communites can be used to maximize outreach.

In addition to its founding agencies--The Appalachian Regional Commission and the National Institute of Education--ACSN has received critical support both in resources, and technical advice and counsel, from NASA and the National Telecommunication Information Administration, which continue to assist ACSN its public service mission.

ACSN provides a framework for co-operative action and resource sharin nationwide. For more information abou becoming a part of ACSN, call Davi Buckingham at (202)673-7866.

RECENT LIVE BROADCASTS

In keeping with their communit interest programming, ACSN carried live broadcast June 12 (noon to 3:0 EDT) of the annual meeting of the United States Conference of Mayors held in Seattle, Washington. Mayors from 300 of the largest cities in the country attended to hear an address by President Jimmy Carter presidential candidates Joh Anderson and Ronald Reagan als appeared.

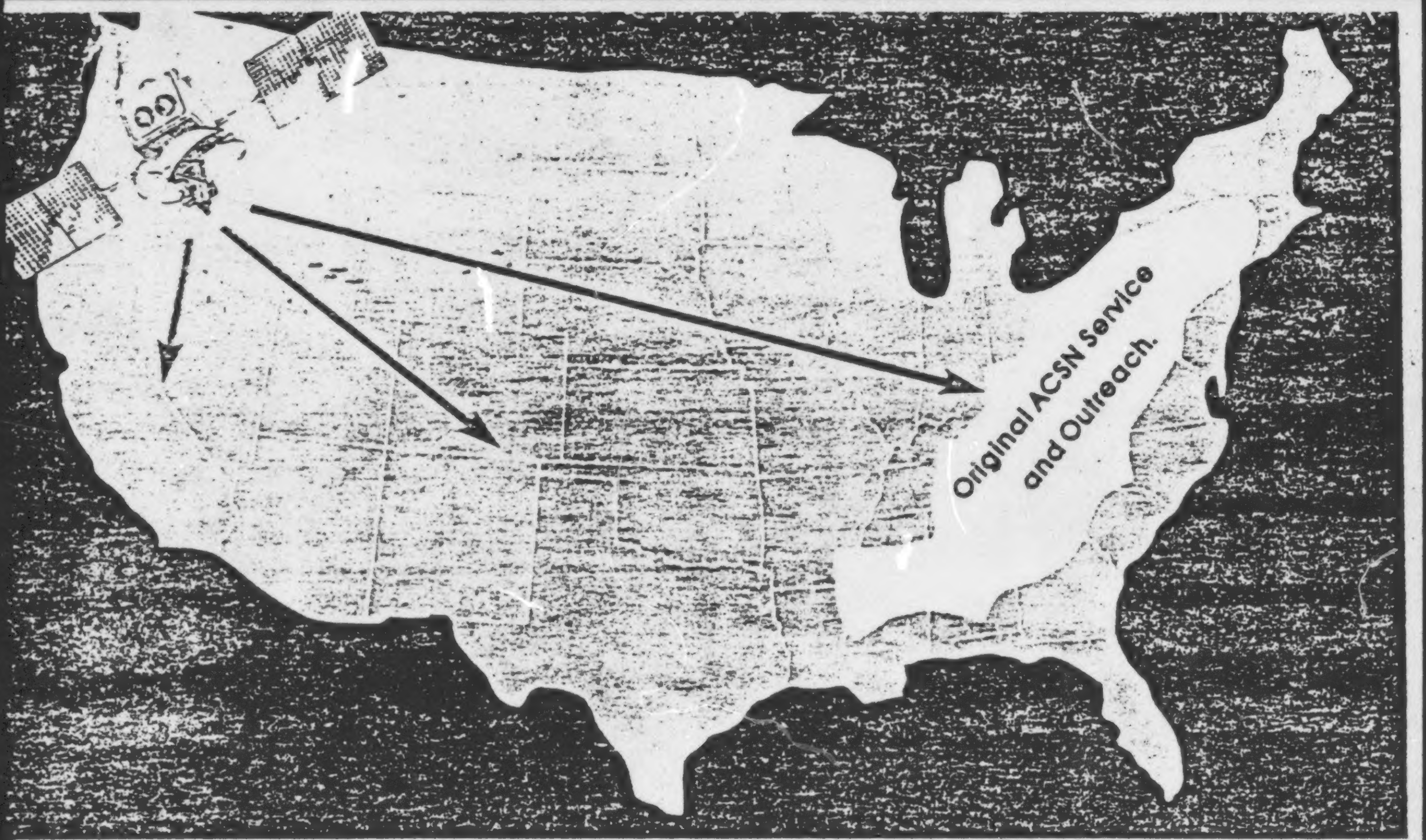
Taped segments were don throughout the session and wer consolidated into one program for use by local cable television; the mayors attending the session also took th tape back with them to their respectiv cities.

On May 9, 1980, ACSN als broadcast a teleconference covering live the official christening of th National Department of Education by President Carter during Salute t Education Week.

END

Appendix M

TVC Article, 1980



When ACSN first began serving the Appalachian region, its reach was confined to a 13 state area. Today, more than 50 cable systems throughout the country representing some 500,000 subscribers take the educational programming.

The Appalachian Community Service Network: Building a Bigger Schoolhouse

It has been an idea that has developed slowly, but this fall marks a new era in educational programming.

By Jill Marks
TVC East Coast Correspondent

When the Appalachian Educational Satellite Program started broadcasting back in 1973, it was, to say the least, a limited operation. It was brief, programming only about 10 hours of educational courses a week; regional, reaching just 15 receive-only earth stations in the Appalachian region of 13 states; and poor, constantly seeking funds from federal agencies.

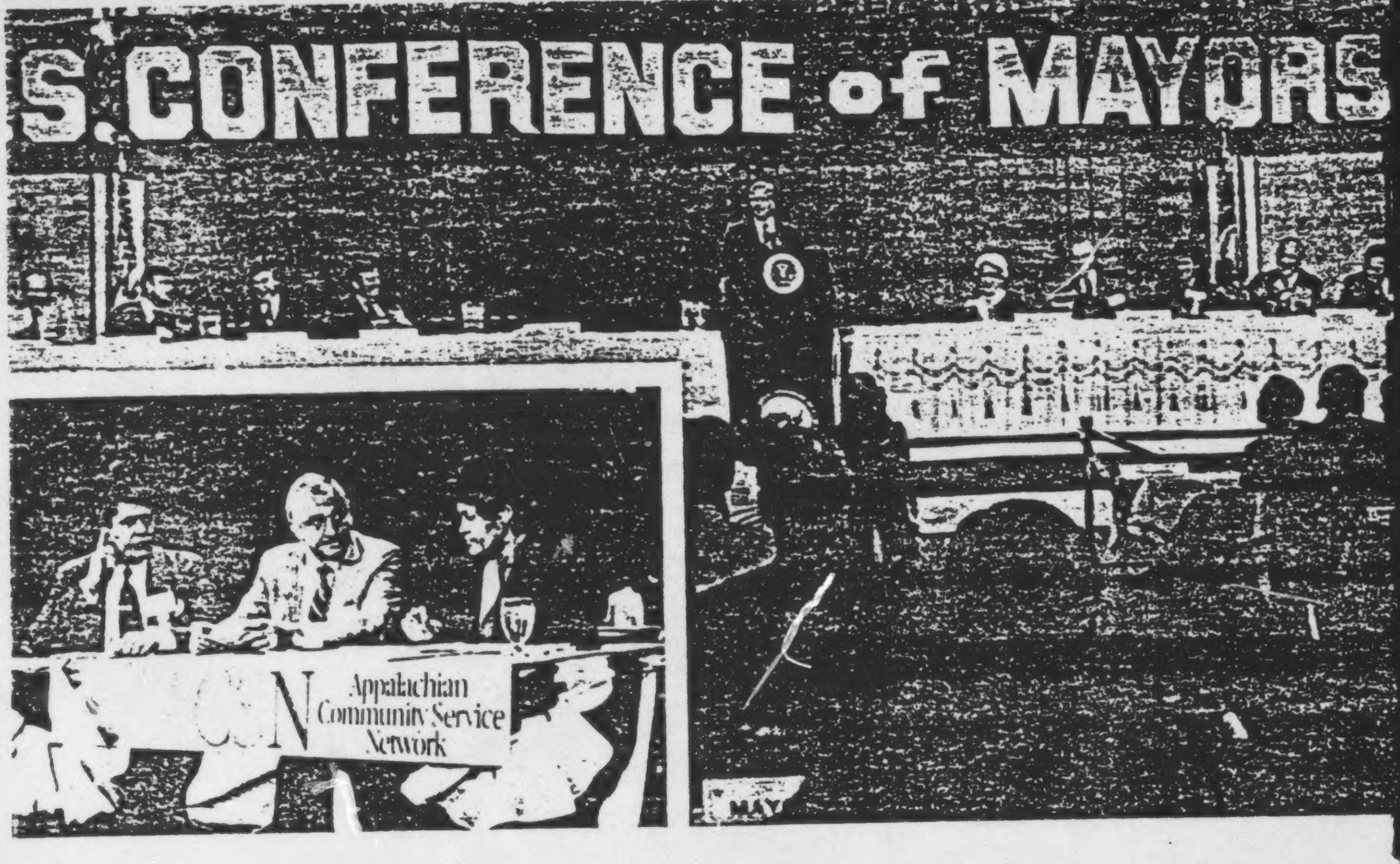
NASA had over 40 experiments planned for the ATS-6 satellite on which the education service was carried. Most of those were scientific in nature, and, it was rumored, the Appalachian Educational Satellite Program and three other educational experiments were added only as an afterthought.

The organization was sponsored by the Appalachian Regional Commission, a quasi-federal agency. According to David Buckingham, ACSN's coordinator for cable, the Commission "didn't care whether we kept AESP going" after the ATS-6 was loaned to the Indian government in May 1975.

"The ARC project was able to limp along getting monies to do needs assessment and keep our staff going at a minimal level in hopes that the satellite would be returned," says Buckingham. Though the ATS-6 was returned by India in September 1977, it was decommissioned in the summer of 1979.

Spurred by a report from marketing consultant John Lubetkin, director Harold Morse saw potential in RCA's Satcom I as a new vehicle for the programmer's educational services, with a much broader audience base than rural Appalachian residents.

In September 1979, the Appal-



President Carter addresses the conference which was received by more than 300 systems.

achian Regional Commission established the Appalachian Community Service Network in cooperation with the National Institute of Education in order to continue what these groups considered a highly successful educational program. This action was followed by a contract with RCA American Communications for 3,600 daytime hours of time annually on Satcom I's transponder 16.

Hours are Mon., Wed. and Fri., 7 a.m. to 5 p.m.; Tues. and Thurs., 7 a.m. to 7 p.m., and Sat. and Sun., 7 a.m. to noon.

Thus, ACSN's programming took off. From four courses of continuing education for teachers, to its current 64 hours a week of college-credit, professional education, and community service programs, ACSN has grown with an eye to becoming *the* American community service network.

From heart surgeon Dr. Michael DeBakey's "Living Heart" workshop to a telecast of the U S. Conference of Mayors, ACSN has outgrown its regional charter by leaps and bounds. More than 50 systems representing over 500,000 subscribers offer the service, and the Appalachian Community Service Network expects to reach over two million potential subscribers by the end of 1981. In most of the major market franchise proposals, cable companies have written in ACSN, presenting it as one of their more sterling community-service offerings.

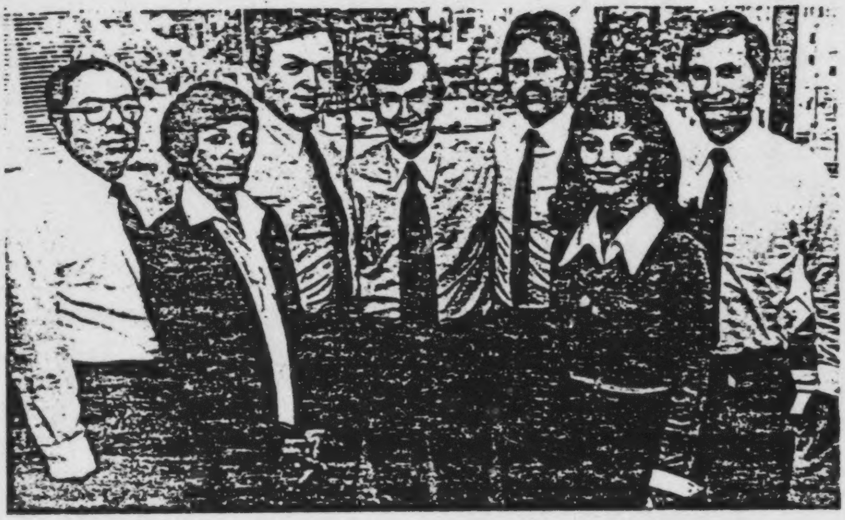
This rapid growth has brought changes to ACSN. "When we finally made the decision to use Satcom," says Buckingham, "some things became evident to us. One was that we could not operate effectively in the cable industry being part of a quasi-governmental entity supported by federal funds . . . from the point of view of giving the cable operators what they wanted, providing them with an effective product, being able to invoice them, contract with them . . . service the affiliates."

So the transition from a semi-federal pilot project to a full non-profit organization began. This fall, a 14-member board of directors was named by the Commission to govern major network policies and provide general management, programming and financial direction.

Terry Sanford, former governor of Kentucky and now president of Duke University, chairs the board, which includes educators, attorneys and journalists with many from the Appalachian region. At its first meeting, the board approved a $5.6 million budget and appointed Dr. Harold Morse president of the corporation. Morse, who has been with the project since its inception almost 10 years ago, was most recently executive director of ACSN.

On Oct. 1, the network began functioning as an independent financial as well as corporate entity. Part of the group's funds will come from revenues paid by cable operators of 1 cent per subscriber per month, and Dr. Pat Sumners, news director, says she expects revenues to increase significantly as an increasing number of systems pick up the service.

Most of the network's programming is developed by colleges



Upper Left: *The staff of the network includes (L.-R.), Dennis Goldstein, secretary treasurer; Linda Resnik, director of mktg.; Dr. Ralph Malvik, v.p. of programming; Dr. Harold Morse, president; Rob Shuman, v.p.; Dr. Pat Sumners, director of public relations, and Hank Schlenker, director of public telecommunications services.* **Right:** *David Buckingham, coordinator for cable operations.*

and universities participating in the program, with some supplied by federal agencies and community groups. The program operations center is in Lexington, Ky., headed by Dr. Nofflet Williams.

Programming is comprised of three distinct types:

Fifty percent is graduate and undergraduate college-credit coursework like "Freehand Sketching," an undergraduate level beginning art course. Thirty percent of programming is devoted to professional development workshops or continuing education courses like "Hazardous Materials: Emergency Management," part of a series of training sessions for firefighters.

Twenty percent is general community service programming, or what Rob Shuman, deputy director of SCSN, calls "the glue of the system." Shows such as "Consumer Survival Kit," cater to the special needs of household women, the handicapped and the elderly.

A typical ACSN course, "Teaching the Young Handicapped Child, An Overview," was developed by PUSH, Parents Understanding Students' Handicaps, using HEW funds. This graduate-level course, was designed to help teachers implement the federal law which requires that handicapped children be mainstreamed into regular classrooms. The telecourse deals with all in-class and outside issues, such as legal concerns and parental relations, which confront school systems nationwide in the mainstreaming process.

Buckingham says that over 1,000 teachers signed up for it through local colleges and universities which coordinate the granting of credit and all paperwork students need to participate in the course.

More than 50 colleges and universities now offer courses through the ACSN system. ACSN coordinates all software, including printed materials, tests and, of course, the video program, with the institutions. The colleges act more or less as registrars, contracting with ACSN to offer credit for the

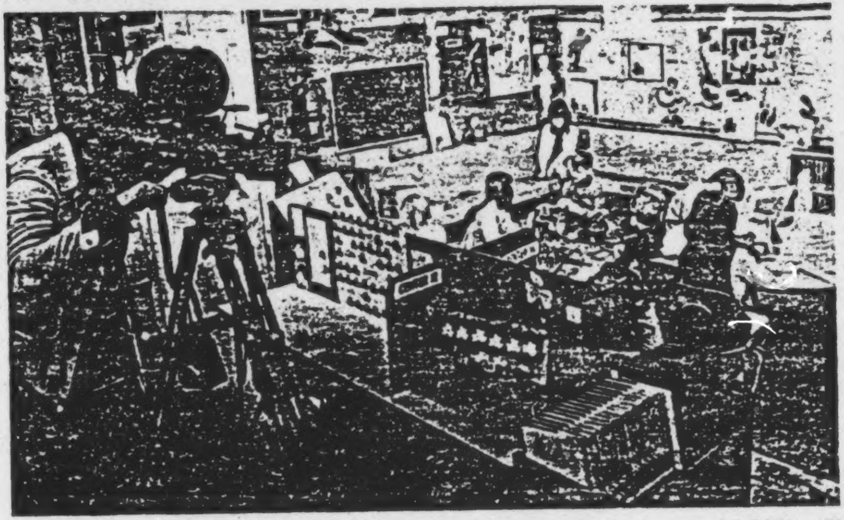
Ali-aba and The Legal Feed

A prime example of ACSN's continuing education telecasting abilities was demonstrated this fall in cooperation with the American Law Institute-American Bar Association (Ali-aba). Five two-to-three hour sessions of "Legal Issues in the Eastern Coal Industry" were broadcast to more than 75 cable systems in the East and Midwest over a period from Sept. 27 to Oct. 16.

The course of study, held in June, 1980, in Lexington, Ky., was videotaped. When aired, it was followed by an interactive segment during which viewers questioned the faculty by telephone hookup. Registrants received a 750-page book of course materials in addition to viewing the program, for a $190 fee paid to Ali-aba.

Being able to fulfill continuing legal education requirements from their armchairs rather than at an expensive big-city seminar (requiring hotel accommodations and airfare) is appealing to most professionals who live in small towns. But directors of state continuing legal education agencies are concerned about monitoring television seminars to ensure that content is acceptable for credit. Two-way hookups may be the answer, if cable systems can air the programs live. Another concern is verification for credit. The Ali-aba courses request attorneys to send in a card after each telecast, but that may not prove they have watched the program.

With even more sensitive areas, such as medicine, on the horizon, Telecourse programmers have yet another complicated program issue to resolve.



Continuing education for teachers, the original programming thrust of ACSN, still plays a vital role in public service offerings.

courses, registering students and collecting tuition for the program.

In carrying the service, cable operators are not obliged to perform any educational functions other than putting the service on a basic channel and paying ACSN the monthly fee. Buckingham stresses, however, that in order to reap maximum community-service recognition and benefits, "the educational institution must promote it.

"We don't have advertising," he says, "We don't have the power behind us, where people are naturally going to tune into the channel carrying ACSN. It's got to be localized... There's got to be a local group handling that."

To help promote awareness on the part of educators to cable's potential as a tool, the network telecast portions of the American Council of Educators' meeting in San Francisco Oct. 9. About 5,000 college and university presidents attended, and the highlight of the satellite-delivered program was an address by Secretary of Education Shirley Hufstedler, followed by a question and answer talk-show conducted by the Appalachian Community Service Network.

Enlisting the aid of the educational community is as crucial to cable firms engaged in franchising as it is to the network. Educators are often the most vocal of community members when it comes to criticizing franchise proposals and are quick to seize on community service offerings. It's easy to see, given ACSN's history and prominence in the educational world, why it is increasingly the educational channel of choice among operators building their reputations on public service. ☐

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Circle #83 on page 199.

Appendix N

Appalachia Article, 1981

APPALACHIA, published by the Appalachian Regional Commission
January-February 1981

ACSN Takes Off

By Judith K. Ballangee

Anyone who still believes Appalachia isn't running a fast race to catch up with the rest of the nation hasn't heard of the Appalachian Community Services Network (ACSN). This nonprofit organization, conceived and nurtured by the Appalachian Regional Commission (ARC), is in fact a step or two ahead of almost everybody else in the biggest revolution since the computer became commonplace.

ACSN is a television network that uses a combination of satellite transmission, cable (CATV) systems and individual satellite receive sites to deliver community service, college and continuing education credit, teleconferences and workshops to the 13 Appalachian states. That it is also now accessible coast to coast is the kind of bonus the Congress had in mind in 1969 when it characterized the Appalachian Regional Development Program as a "national laboratory" in which to test ideas that could benefit the nation as well as the Region.

The revolution in question is the explosion of sophisticated telecommunications systems that are, in the words of television veteran Michael Dann, "wiring" our society. Dann wrote, in the December 1979 issue of *Watch* magazine: "In my 1973 Yale University course titled 'The Wired Society,' I predicted that the United States would see concrete examples of the electronic revolution by 1983 . . . . I couldn't have been more wrong. The revolution has already started, and it is running at least five years ahead of my predictions . . . . The tripod birth of satellite use, two-way cable . . . home video recording . . . the software explosion . . . news channels . . . it's all here."

To his list Dann also could have added community services program-

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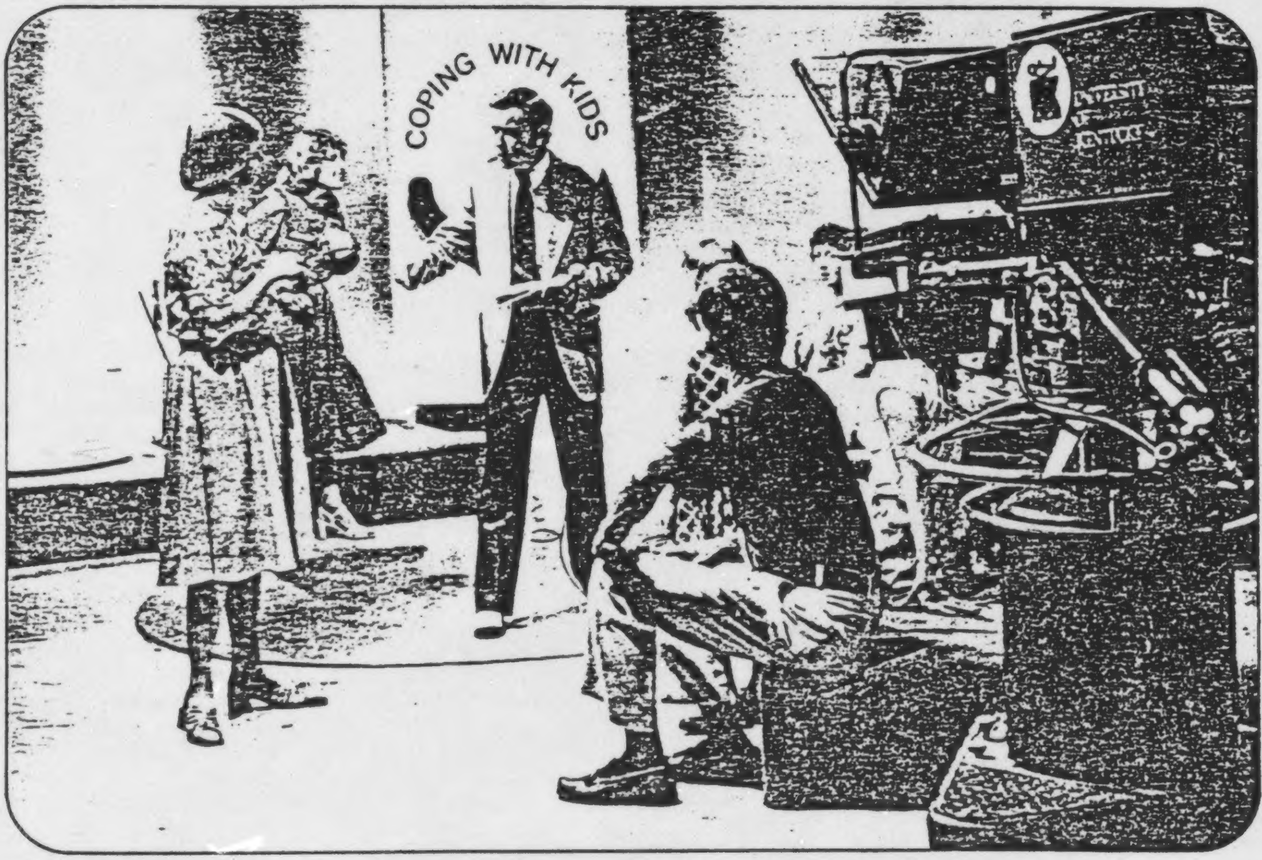
Judith K. Ballangee was formerly on the staff of the communications division of the Appalachian Regional Commission.

ACSN produces many of the course programs it offers for credit or certification. Here the ACSN production crew tapes a live seminar by Dr. Tom Sweeney, host of "Coping with Kids."



Duke University Photography Service

ACSN

(LEFT) Terry Sanford, president of Duke University and former governor of North Carolina, is the first chairman of the board of directors of ACSN. (RIGHT) Dr. Harold Morse, director of the Appalachian Regional Commission's education division, is the first president of ACSN.

ming, for, by the time his article was published, ACSN was a well-established reality. In fact, ACSN took its first experimental steps in 1972.

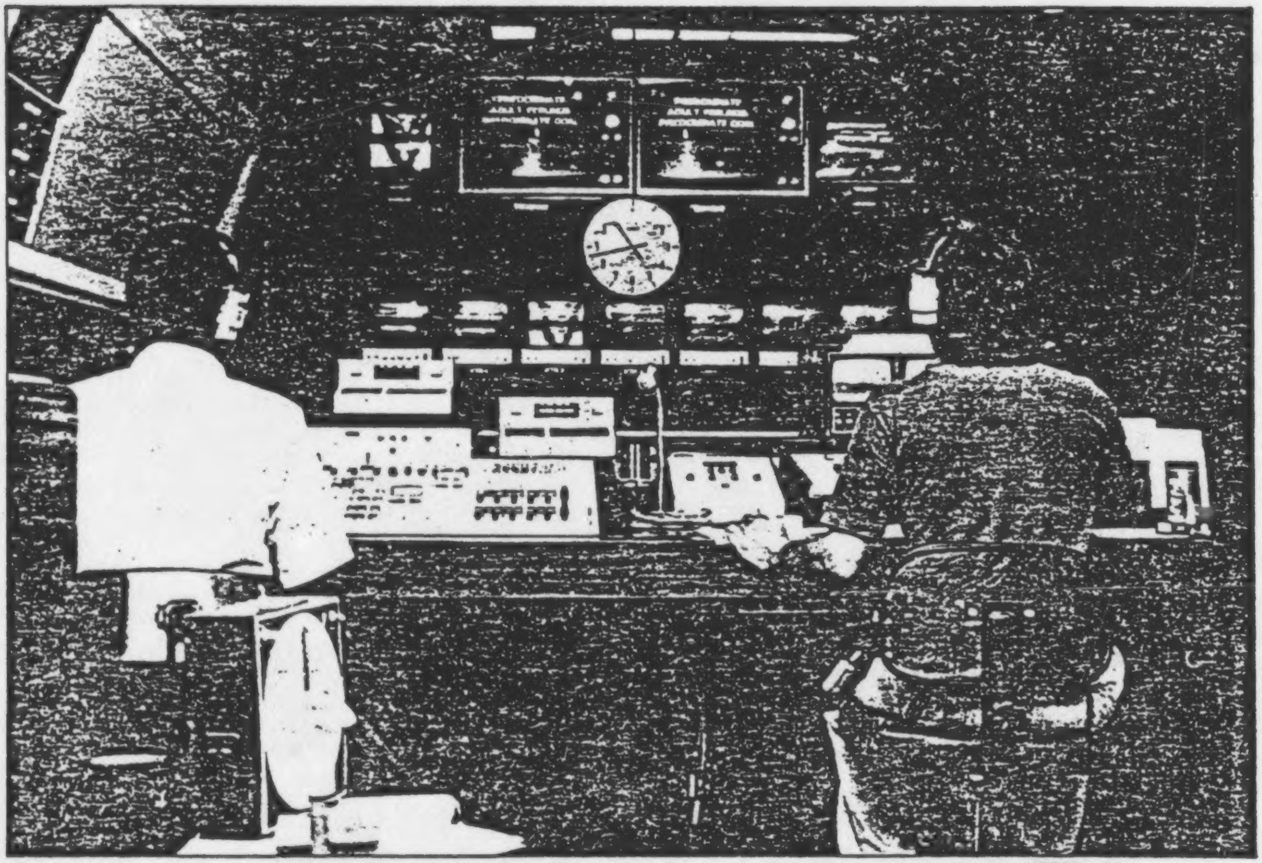
From a Notion to a Network

ACSN was the brainchild of the Commission, born out of the need to stem the outmigration of teachers from the Region. Recognizing that continuing educational opportunities were essential to keeping good teachers and to improving the quality of education on the whole, ARC set about finding a way to solve the problem. History had already proved that traditional methods for delivering human services such as education and health were vastly inadequate in Appalachia, with its scattered, often isolated populations and rugged terrain. Whatever the solution, it would have to be innovative.

The option that seemed to hold the most promise was indeed innovative—the experimental applied technology satellite (ATS) program of the National Aeronautics and Space Administration (NASA). Rapid technological advances had refined and simplified satellite and telecommunications technology to the point where broad practical applications were possible. Through its program, NASA was actively seeking various interest groups to use its ATS satellites to demonstrate some of these applications.

Nearly two years went into the planning and preparations. Negotiations with the National Institute of Education (NIE) won the Commission a partner who was willing to put up money if ARC would do the rest. So ARC provided the staff, office space, administrative support, regional expertise, and the state and local contacts necessary to put the project into operation.

In September of 1974, ACSN (known until 1979 as the Appalachian Educational Satellite Project) began its first satellite-delivered continuing education course. Teachers gathered at 15 classroom sites where receiving antenna and other appropriate equipment had been installed. Since NASA's ATS-6 satellite did not cover the entire Region, the 15 sites were confined to only eight states—New



The control room in the Lexington, Kentucky, Program Operations Center is where the action is during ACSN's 64-hour broadcast week. The control panel in the foreground and bank of TV monitors are typical of those found in public and commercial TV operations across the country.

York, Pennsylvania, Maryland, West Virginia, Virginia, North Carolina, Tennessee and Alabama.

In addition to electronic equipment, each site also had a resources library and other appropriate support materials for the students. The televised course originated at the Resource Coordinating Center (now called Program Operations Center—POC) located at the University of Kentucky's public television station in Lexington. The center, with the cooperation of the public broadcast staff, produced the course and all support materials under ARC supervision.

That first televised course was quickly followed by another, and, within two years, 1,200 teachers had participated in four courses which were accredited by several regional universities and colleges. Early evaluations of these courses revealed two important facts: that the teachers considered them as effective as those held in the traditional college classroom setting and that delivery via ATS satellites was cost-effective on a per-student basis.

Encouraged by this initial success, the Commission and NIE conducted a regionwide program needs assessment in association with the local advisory councils which ARC had established at each receive site. Following a principle basic to all Appalachian development programs, the Commission relied on its local arms—in this case the councils—to help direct its decisions.

Priorities identified in the assessments gave ACSN its program direction beyond those first experimental courses. By 1976, ACSN had gradually broadened its focus, adding education courses for the health care professions, government, business and other groups. ACSN continued this growth until 1978, when it became clear that the project had progressed beyond the experimental stage.

However positive, its rapid development had created a whole new set of concerns for the Commission. Given its limited personnel, ARC could not continue to increase the staff hours necessary to keep pace with the network's growth. On the other hand, the Commission could not restrict its commitment without jeopardizing one of its most successful projects.

> *"Although the Appalachian network is now independent, we must never forget one crucial fact: ACSN still belongs to the people of Appalachia. It was the depth of the community support and the strength of the ARC's commitment that made ACSN a reality; it is that support and commitment that will assure its success in the years to come."*
>
> Governor John D. Rockefeller IV of West Virginia,
> ARC's 1980 states' cochairman

Before that issue could be resolved, a more immediate crisis arose. ATS-6, the NASA satellite used by the network, began to deteriorate in orbit. If the project was to continue at all, ACSN had to move to a domestic commercial satellite within the year.

The Commission acted quickly. After investigating the available satellites, ACSN purchased time—up to 84 hours a week—on RCA's Satcom 1. The significance of this decision was twofold. Unlike the ATS satellite, which served only about two-thirds of the Region, Satcom 1 covered all 48 contiguous states. Not only would ACSN now have added airtime in which to respond to the growing demands for additional programming; it could now serve the entire Region, even the nation. But exciting though it was, the move also intensified the Commission concern about future expansion, now guaranteed by Satcom 1.

By the fall of 1979, the Commission had resolved the situation with two key decisions: to spin the network off into an independent, nonprofit corporation and to commit, for the first time, ARC money to its survival.

A Gradual Approach to Independence

ARC's decisions were implemented gradually over the following year, with considerable attention given to assuring that ACSN's first independent steps would be taken on firm ground.

"The Commission agreed that a nonprofit corporation provided the most suitable management structure and the greatest capacity for fund raising, both of which are necessary to assure the network's eventual financial self-sufficiency and continued community control of programming," ARC Executive Director Henry Krevor explained. Recognizing that the Commission members (the 13 Appalachian governors and the federal cochairman who represents the President) and ARC's regional expertise were also crucial to ACSN's success, the Commission designed a corporate structure that favored Appalachia.

First, the Commission appointed a board of directors in cooperation with NIE, the Southern Educational Communications Association (SECA) and the Eastern Educational Television Network (EETN). ARC appointed 14 members, with the other three organizations naming one member each. As a whole, that board represents 11 of the 13 Appalachian states and a cross section of regional interests that includes academia, the public and private sectors, labor and the media, to name a few. Based upon his unique credentials as a former governor of North Carolina, founding member of the Commission and current president of Duke University, Terry Sanford was selected to chair the board.

At the board's recommendation, ARC named Dr. Harold Morse, director of the project since its infancy, as president of the new corporation. A member of the ARC staff for a dozen years, Dr. Morse had served as director of the education program for eight years.

In the months that preceded the election of the board, ARC prepared the network for its new nonprofit status. The Commission underpinned its own commitment with a three-year grant (FY 1980-82) of $5.7 million, while ACSN staff intensified efforts to generate new sources of income. Between 1972 and mid 1980 the network had received a number of grants, totaling nearly $9 million, from NIE and others, including the Department of Transportation, National Telecommunications and Information Administration, the Departments of Education and Health and Human Services, Small Business Administration and NASA.

ACSN also accelerated its efforts to add cable services to the network. Several cable systems in Appalachia already had joined the network on a full- or part-time basis, some via their own receive equipment and others through hookups with ACSN classroom receive sites. Now, for the first time, ACSN encouraged cable services outside the Region to sign on. Inquiries from around the country had indicated a growing interest in ACSN programming, and, as Dr. Morse explained, "We saw no reason not to make our services available outside Appalachia, although we had, and have, no intention of adapting our programming to attract non-Appalachian viewers."

To assure that the smaller regional CATV systems could afford the service, ACSN set a rock-bottom fee: one cent per subscriber per month. With that fee structure, a small CATV system with 1,500 subscribers can purchase the service for an annual cost of $180.

At the same time ACSN aggressively sought to broaden its financial and viewing base, it also upgraded and expanded its Program Operations Center in Lexington, installing the new "up-link" equipment necessary for Satcom 1. A new broadcast studio was added, too, so that the network could broadcast at the same time it was producing and videotaping other courses. Both the operations and the Washington-based staff were also augmented.

On September 2, 1980, the network (by that time already feeding its service over Satcom 1) increased its broadcast hours from 35 to 64 per week. Then, a few weeks later, the ACSN Washington staff moved out of the ARC headquarters to its own corporate offices a few blocks away. Finally, after months of careful planning, all the pieces were in place. The Appalachian Community Services Network was off and running.

A Model for the Future

Today, less than six months since it became an independent nonprofit corporation, ACSN is still in the vanguard of a new television era. With eight domestic satellites now in use, television transmission is no longer a prohibitively expensive venture. It is an open marketplace that is spawning new program services almost daily.

> *"One of ARC's greatest contributions is the Appalachian highway system that physically links the Region to the rest of the nation and brings Appalachians closer together. The Appalachian network is doing the same thing at a different level, using TV to link people . . . small town mayors, coal miners, rural physicians, housewives and many others . . . and to give them the educational tools they need to realize the rich potential of their lives."*
>
> Al Smith, federal cochairman of ARC

While few are matching the production sophistication of the major networks, these new services are whetting the national appetite for more and different television viewing, as testified to in a recent *Newsweek* commentary by Douglas Davis, one of the magazine's senior writers.

Mr. Davis wrote, in part, "We can link together a few cities or the entire United States for a fraction the cost required in the old days . . .Now, suddenly, there can be many senders, many diverse and individual voices, as well as many CATV station receivers, equipped with dishes . . .This presents a profound change from the monolithic three-network, pre-satellite era."

Citing ACSN as one model for change, Mr. Davis continued, "I believe we should open up several other channels directly to the worlds of education, labor, medicine and science, as well as the arts—to reach small specific audiences as well as large."

Despite such recognition, ACSN wasn't the first TV operation to deliver its programming via satellite; it wasn't even the first to provide educational courses or community services programs. But it is the first to do both, and to do so on a long-term continuous basis.

Since 1974, ACSN has matured into a network that today serves over a million Appalachians and another quarter of a million Americans outside the Region with a new kind of television. This "new" TV serves up education and information using not only sophisticated technology but the more creative production concepts and techniques developed and constantly refined by the major networks. To that, ACSN has added some twists that give instructional TV a vitality it lacked for many years.

ACSN programs, depending upon their nature, may include a lecture; a panel discussion among experts; an "on-site" demonstration of techniques being taught; live, two-way audio discussions between students and experts gathered in the POC studios or a live telecast of a major conference speech or workshop to interested professionals or public officials around the country.

This approach is a far cry from the first attempts at "instructional" TV. Although ACSN helped pioneer multifaceted, two-way TV for instructional purposes, the trend has spread rapidly. This trend is being facilitated daily by two factors: the technology itself, which makes live telecommunications interaction routine, and the increasing number of TV production people, schooled in the techniques and creative modes of commercial and public broadcast, who are being attracted into newer groups like ACSN.

Today, the number and range of progams available seem almost endless. While ACSN produces many of its own programs, it regards other producers as sources rather than competition. ACSN regularly searches out, and uses, other high-quality programs as a means of holding down its own production costs while still meeting the demands of its participating public and the Commission.

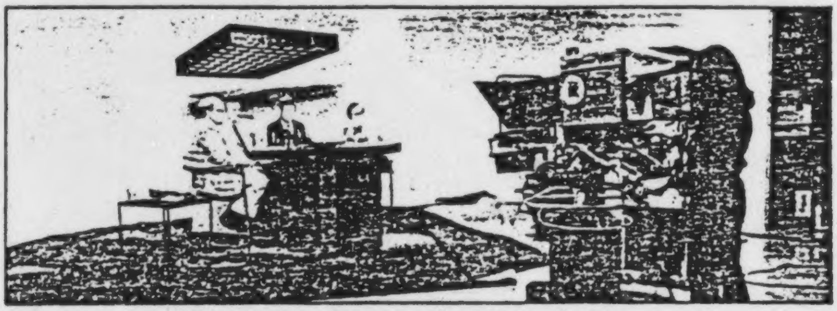
A partial list of those other sources would include a dozen or more colleges and universities, the Agency for Instructional Television, American Red Cross, Association for Media-Based Continuing Education for [illegible]neers, Bureau of Education for [illegible] Handicapped, Film Communicators, Great Plains National Instructional Television Library, McGraw Hill Films, Media Five, NASA, Smithsonian Institution and the U.S. Department of Energy.

The decisions as to what kinds of programs are scheduled, however, still originate in Appalachia. And it is the regional needs expressed by its advisory councils and ARC that determine how the technology is applied and the programming constructed. With their guidance, ACSN has grown from a limited schedule of a few credit courses for teachers to a broader community focus that takes in everyone from coalminer to physician, factory supervisor to housewife.

As a result, ACSN's program schedule now provides not one, but four categories: telecourses, workshops, teleconferences and community services.

Telecourses. The graduate, undergraduate and continuing education courses offered via ACSN are the heart of the network's operations. ACSN does not, of course, grant credit for the courses, but over 50 colleges and universities around the country do.

Each of these participating institutions of higher education has an agreement with the network under which the institution pays $25 per graduate student per course plus 30 percent of the tuition charges for professional development and teleconference activities. And ACSN provides each of the participating institutions with such support materials as program utilization guides, broadcasting preview tapes and printed course support materials. In addition, the network provides TV promotional tapes and



Panelists are taped for an ACSN workshop on hazardous materials.

other public information materials to assist the institutions, the 65 receive sites (CATV and community receive-only sites) to promote participation in the courses.

Alan Rubin, president of Kay Dee Neddle Corporation in Belmont, Mississippi, and six other employees of that furniture-manufacturing firm were among those who participated in the "Organizational Transaction" telecourse designed to help management level and supervisory personnel improve their organization skills.

Despite a few technical problems (the quality of the videotape was not up to par—it had been recorded from ATS-6 during the satellite's dying days), Mr. Rubin was obviously satisfied with the overall substance and impact of the course. Moreover, he believes that ACSN offers a special new opportunity to the industry and people of Northeast Mississippi.

"It [ACSN] offers a terrific opportunity for people in this area who lack formal education, particularly those who did not go beyond high school. It is a way to bring education to them.

"Industry, not just Kay Dee Neddle but industry throughout this area, is constantly searching for competent, well-trained people. All too often we are forced to go outside our own area to find them," he continued, "But if this type of educational program continues, we'll be able to breed our own management. I think that's just what ACSN has in mind, and we couldn't agree more enthusiastically."

The Kay Dee Neddle people took their course at ACSN's classroom site at Northeastern Mississippi Junior College in Booneville, Mississippi, which granted participants two hours of continuing education credit. Mrs. Opal Melvin, director of that site, reports that over 1,500 people from the five-county area served have participated in graduate, undergraduate, continuing education or recertification credit courses delivered via the network.

Among the new courses introduced this fall was "Legal Issues in the Eastern Coal Industry," a continuing education telecourse for lawyers. Produced in cooperation with the American Law Institute-American Bank Association (ALI-ABA), the course addressed tax planning; black lung benefits; the Federal Mine Safety and Health Act; surface mining; environment; and citizens' rights—all crucial issues in Appalachia and other sections of the country where coal mining is going on.

Examples of other telecourses include "Teaching the Young Handicapped Child," "Strategies in Reading," "Contemporary Health Issues," "Personal Finance and Money Management," and "The Growing Years."

Workshops/Professional Development. Workshops, with their mix of videotaped and "live" interaction, have become one of ACSN's most popular modes for delivering credit coursework, professional development and training for special groups. Two especially popular examples of workshops are "The Living Heart," featuring world-renowned heart surgeon Dr. Michael DeBakey, and a series of workshops for firemen.

For the heart workshop, ACSN sent a production crew to film Dr. DeBakey at Baylor University College of Medicine. The taped portion of the workshop, which included Dr. DeBakey performing surgery and explaining his techniques, also included a live interactive portion with Dr. DeBakey personally responding to questions from participants who phoned, using ACSN's toll-free 800 telephone hookup, from receive sites scattered throughout the Region.

As with most all ACSN offerings, "The Living Heart" was videotaped at the sites for repeated use. A number of the sites report having repeated the workshop 10 to 15 times for physicians, nurses, health care paraprofessionals, and health care students.

Given the success of the workshop, it came as no surprise that Dr. DeBakey agreed to a second workshop, this one on the prevention of heart disease. It is scheduled for initial airing in early 1981.

A series of four workshops for firefighters, police and emergency medical personnel is another success story.

W.R. Pittman

World-renowned heart surgeon Dr. Michael E. DeBakey was featured in one of ACSN's most innovative telecommunications programs for physicians, nurses and other health care professionals.

This series, which addressed such issues as handling hazardous materials, has also been repeated many times around the Region.

"Appalachia is a region of many, many small towns and few large cities. A very high percentage of those towns must rely upon volunteer firemen who have little or no access to professional training," Dr. Morse explained, "We've had about 2,000 professional and volunteer firemen participate in this workshop to date, clearly proving the need for, and interest in, such training sessions regionwide."

The most recent in this workshops series, "Hazardous Materials—Emergency Management," includes segments of films produced especially for firefighters and footage from a recent chemical dump explosion, along with a discussion between participants and a panel of authorities on hazardous materials.

ACSN also has workshops on topics aimed at broader audiences. This fall the network introduced a new workshop called "Loss: The End of the

Beginning," designed to help people gain a better understanding of loss as a normal life process. Another popular workshop was on cardiopulmonary resuscitation (CPR). Held in cooperation with local chapters of the American Heart Association, the workshop combined televised instruction and group sessions in which the students learned and practiced CPR techniques. Successful completion of the course resulted in CPR certification.

Teleconferencing. Teleconferencing, perhaps more than any other ACSN activity, demonstrates the immediate impact of existing telecommunications technology. Thanks to satellites and cable, ACSN can allow busy school officials to attend a conference with the U.S. Secretary of Education without ever leaving their school districts, or small town mayors to participate in the annual meeting of the U.S. Conference of Mayors without leaving town. Given this age of ever-increasing fuel costs, teleconferencing is likely to become an increasingly popular way to conduct conferences and meetings without requiring participants to meet the added expenditures of travel.

ACSN has been among the most active telecommunications groups that provide this special service. In recent months, the network has conducted a teleconference of the U.S. Conference of Mayors from Seattle, Washington; a special teleconference for the new U.S. Department of Education featuring Secretary Shirley Hufstedler; a closed-circuit teleconference between U.S. Secretary of Transportation Neil Goldschmidt and the mayors and business leaders of ten U.S. cities; and another teleconference featuring Secretary Hufstedler's keynote policy statement before the American Council on Education, which is composed of presidents of some 900 colleges and universities.

In each case, ACSN made these selected key conference events available to large numbers of concerned professionals and others who otherwise would not have been able to take part.

Teleconferencing also has become integral to ACSN's internal operations and is now used for conferences among the advisory councils, other client groups, the Program Operations Center and the Washington corporate headquarters.

Community Services. The fourth category of ACSN programming is community services. Like the telecourses and workshops, community services programming is determined by the expressed concerns of Appalachians as voiced through the receive site advisory councils and other client groups in the Region.

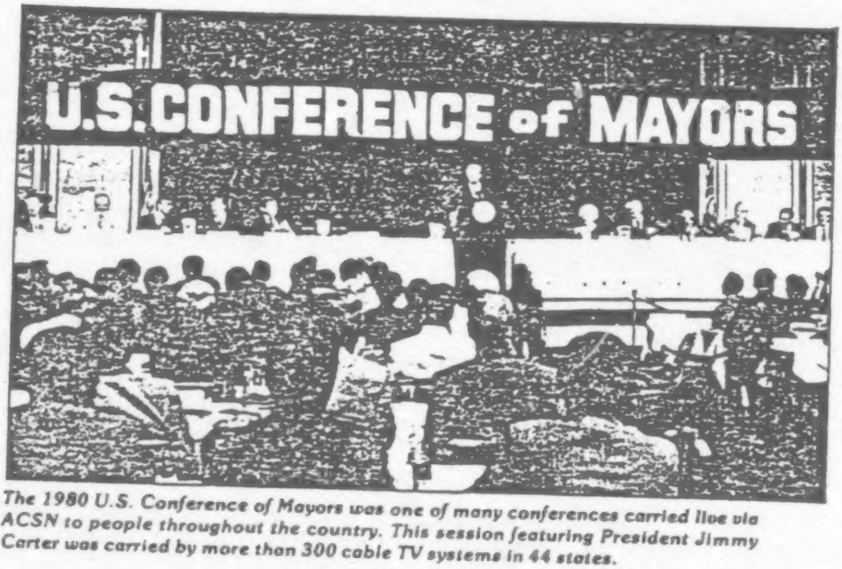
Since the range of interests expressed by those client groups is so broad, ACSN cannot as yet meet all the demands. While the network does produce some of its own community services programs (such as a consumer program featuring Ralph Nader), most of this type of programming currently comes from other sources.

ACSN has developed a system for monitoring programs produced by other sources to identify those that meet the network's viewer demands and to evaluate them on the basis of content and quality. The award-winning children's series "Rebop," funded by the Department of HEW (now the separate Department of Human Services and Department of Education) is an example of the type of community services programming featured by ACSN. Other program topics range from aging to energy, the arts to travel.

PTS. To the four program categories just described, ACSN recently added a new level of services called Public Telecommunications Services, or PTS. Because telecommunications is still a new and ever-changing field, the majority of people and organizations don't know exactly what this is, much less how they can use it. PTS aims to educate potential users, particularly public users, in what telecommunications involves, what advantages it offers, and how they can adapt the technology to their needs.

Initiated with a $410,000 grant from the National Telecommunication and Information Administration (NTIA), ACSN's public telecommunications services program seeks out groups which can use telecommunications to their benefit, then assists them in adapting equipment and programming to their specific needs and budget limitations.

By mixing these four program areas and PTS in proportions dictated by its clients, ACSN has developed a unique identity and a program mix that clearly separates it from the public broadcasting or commercial TV network.



The 1980 U.S. Conference of Mayors was one of many conferences carried live via ACSN to people throughout the country. This session featuring President Jimmy Carter was carried by more than 300 cable TV systems in 44 states.

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A Regional Commitment, Then and Now

Although ACSN obviously is not in competition with the Public Broadcasting Service (PBS) or the commercial networks, it is not without competitors as the number of community service and instructional programming sources continue to multiply in response to the satellite/cable explosion. But ACSN does have some distinct advantages over the competition: a clearly defined primary audience that shares a common cultural and socioeconomic identity, an established method for exchanging ideas with its audience on a regular basis, and a singular commitment to meeting the broad educational needs expressed by that audience.

That commitment was reflected by Dr. Morse when he outlined ACSN's top priorities: to add new regional receive sites and CATV systems; to expand programming to address more of the specific needs expressed by the advisory councils and the priorities stated by ARC; and, finally, to build the corporation's financial base to insure its long-term stability.

"Our most immediate goal is to increase our regional receive sites from 65 to twice that number, concentrating upon the more rural areas with limited access to sources of education and information," Dr. Morse elaborated. "The cable market figures significantly in our plans; it's our entree into the homes of the people we serve."

Because of his long association with the Appalachian program, Dr. Morse brings to the presidency of ACSN a valuable understanding of the Region's problems and of the Commission's priorities. He cited one of those priorities and how ACSN hopes to help achieve it.

Appalachia, particularly some central and southern areas, has low adult literacy rates compared to the nation, Dr. Morse explained. While the problem of delivering adult education in rural and isolated areas is difficult enough in itself, ARC must also cope with another more sensitive issue.

"It is very difficult for any man or woman to enroll in a basic education course, for it amounts to a public admission that he or she lacks the skills most children have mastered by the age of twelve," Dr. Morse said, "And it is even more difficult for Appalachians, who tend to be both very proud and very private people.

"We have identified a basic education course for adults which ACSN can deliver through its cable hookups directly in the homes of these people. That's one of the reasons we're putting so much emphasis upon penetrating the cable market," he continued. "Reaching these people in the privacy of their own homes, no matter where they live, gives us our best chance yet of turning the situation around."

ACSN and the Future

To say a great deal has happened since ARC began its apprenticeship in telecommunications understates the facts. The telecommunications field has erupted with technological innovations that have sent CATV systems snaking across the country, hatched countless program production operations, reduced electronic transmission and equipment costs and forced a reassessment of Federal Communications Commission (FCC) regulations.

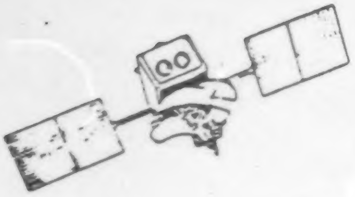
The list of those who transmit programming on the domestic satellites (domsats) is long, and getting longer. PBS and all three major commercial networks rely more and more on the low-cost (compared to telephone lines) domsat transmission. CATV networks—Cable News Network, Home Box Office, Showtime, the Entertainment and Sports Programming Network and ACSN, to name a few—depend exclusively on satellites. Even the U.S. space explorer Voyager I used Satcom 1 to relay the "Saturn flyby" back to earth. ACSN, in fact, was among those that broadcast that historic scientific event.

This rapid evolution in technology, cable services, federal regulations and programming is accomplishing one thing for certain: it's turning yesterday's dreams into today's realities. Medical experts are sharing their lifesaving knowledge with other health professionals even when they're separated by many miles; people are enjoying, in their own living rooms, everything from the Berlin Ballet to Broadway; college credit courses are being transmitted electronically into isolated mountain communities; and awestruck earthlings are being transported via satellite TV to a planet a billion miles out in space.

It's difficult not to marvel at the enormous potential intrinsic to this technology. But perhaps the real challenge is the one ACSN has defined for itself—to adapt each technological innovation to a practical use that can enrich and improve the everyday lives of the people it serves.

When all is said and done, ACSN may be linked to a satellite high above the clouds, but its foundations clearly remain firmly planted in Appalachian soil.

"Consumer Education in Appalachia" is an ACSN program that has met with widespread popularity across the Region. This overview shows the panel of consumer experts on the set, ready for the teleworkshop to begin.



ACSN and the Electronic Revolution

Once upon a time all we needed to know about television was how to turn it on and tune it in. That time is passing fast. Within the next decade, possibly less, millions of American homes will have access to 36 TV channels. Moreover, the experts tell us, we will no longer be passive viewers but active participants as TV becomes a tool through which we do our banking, purchase commodities, earn college degrees, even participate in town council meetings.

Sound a bit farfetched, a little like a scene from *Buck Rogers in the 25th Century?* It's not. Not only is the technology available to do these things; they are being done today and not just on an experimental basis.

What makes all this possible is a combination of satellites, cable television systems, computers and the ingenuity to figure out their practical applications. Understanding the bases of this technology is not all that difficult. The Appalachian Community Services Network (ACSN) combines them all.

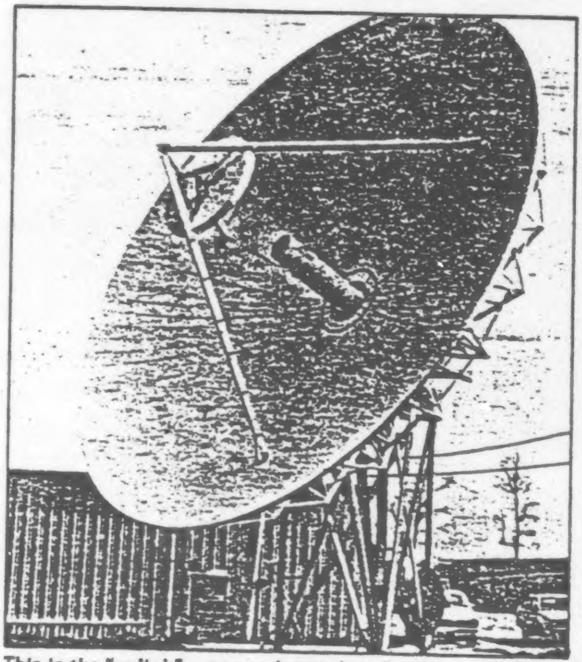
Satellites, Signals and ACSN

There's nothing so mysterious about how a telecommunications satellite works. In reality, it is a giant reflector. Launched thousands of miles into space by rocket, each satellite has its own particular orbital slot. Depending upon its position and equipment configuration, each also can receive and rebroadcast video (picture) and audio (sound) to certain geographic areas on earth. The geographic area covered is called the satellite's "footprint." The satellite, not too surprisingly, is often referred to as the "bird."

When the Appalachian ACSN began, it used the National Aeronautics and Space Administration (NASA) experimental satellites ATS-6 and ATS-3. The one used for video distribution, ATS-6, had small footprints—one of which covered most of the Appalachian Region—compared to the more powerful and sophisticated satellites now in use.

ACSN used the NASA satellites until ATS-6's useful life span terminated in 1979. ACSN now leases one of RCA's 24 Satcom 1 transponders (video channels). The signal that ACSN relays through Satcom 1 covers not only the Appalachian Region but all 48 contiguous states, which gives the network coast-to-coast capability.

How does satellite transmission differ from other methods? First, regular broadcast airwaves, such as those transmitted in all directions from a local TV station's broadcast tower, do not bend and cannot penetrate solid objects like mountains. In rugged terrain like Appalachia, local station viewing areas are limited for just that reason.

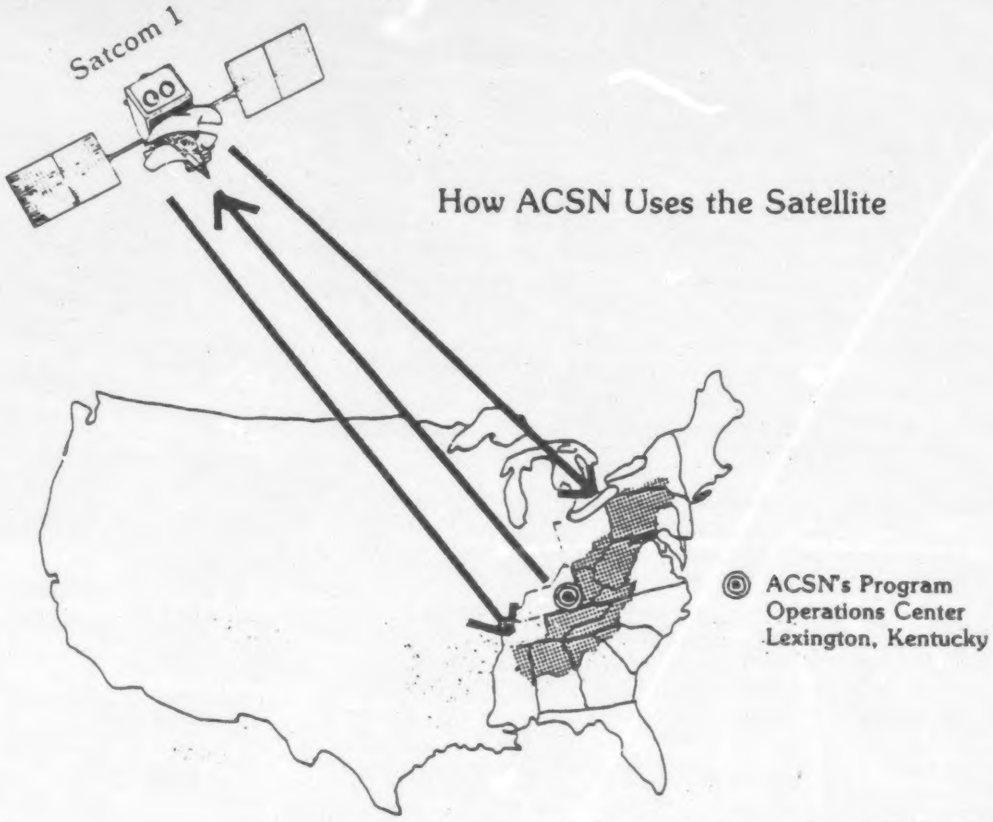


This is the "uplink" antenna, located on Coldstream Farm in Lexington, Kentucky, which ACSN uses to send its broadcast signals over 2,200 miles into space to RCA's Satcom 1.

To overcome that obstacle, the major commercial and public networks used telephone or cable to transmit nationwide until the advent of telecommunications satellites. Today major networks use a combination of satellite and telephone/cable with a steady shift toward increased satellite transmission. The reason is simple: satellite transmission is less expensive by about half.

Satellites have had significant impact upon commercial television, particularly in network news. Almost daily, the three major commercial network news shows feature "live" reports, or events filmed only hours or minutes before, from London, the Mideast, Moscow or some spot halfway around the world. Before satellites, these news stories were taped (or filmed), and the tapes were shipped by airplane to the U.S. for nationwide broadcast. Thanks to satellites, TV news coverage has become virtually up-to-the-minute worldwide.

Satellites are not used exclusively for news from abroad, however. They are used extensively within the U.S. to transmit all sorts of programming from sports events to pretaped college courses. ACSN, for instance, broadcasts 64 hours per week from its operations center in Kentucky, via satellite, to the entire Region.



How ACSN Uses the Satellite

▬ ACSN transmits its program signal to the RCA Sat-[illegible] 1 satellite from Lexington, Kentucky.

▬ The satellite transmits ACSN's signal back down to Appalachia (20 community receive-only sites and 45 subscribing cable systems) and the rest of the continental United States.

Sending and Receiving, Cheap and Easy

Because of new technology, satellite transmission is no longer an electronic miracle; it's an everyday event. Like computers, telecommunications equipment has become less and less expensive to purchase and more and more simple to operate.

To broadcast signals to a satellite requires certain "up-link" transmission equipment. ACSN "up-links" (transmits) to Satcom 1 from its Program Operations Center headquartered at the University of Kentucky. From this production center, ACSN can transmit live or videotaped programs to the satellite, which, in turn, bounces the programs back down to its receive sites.

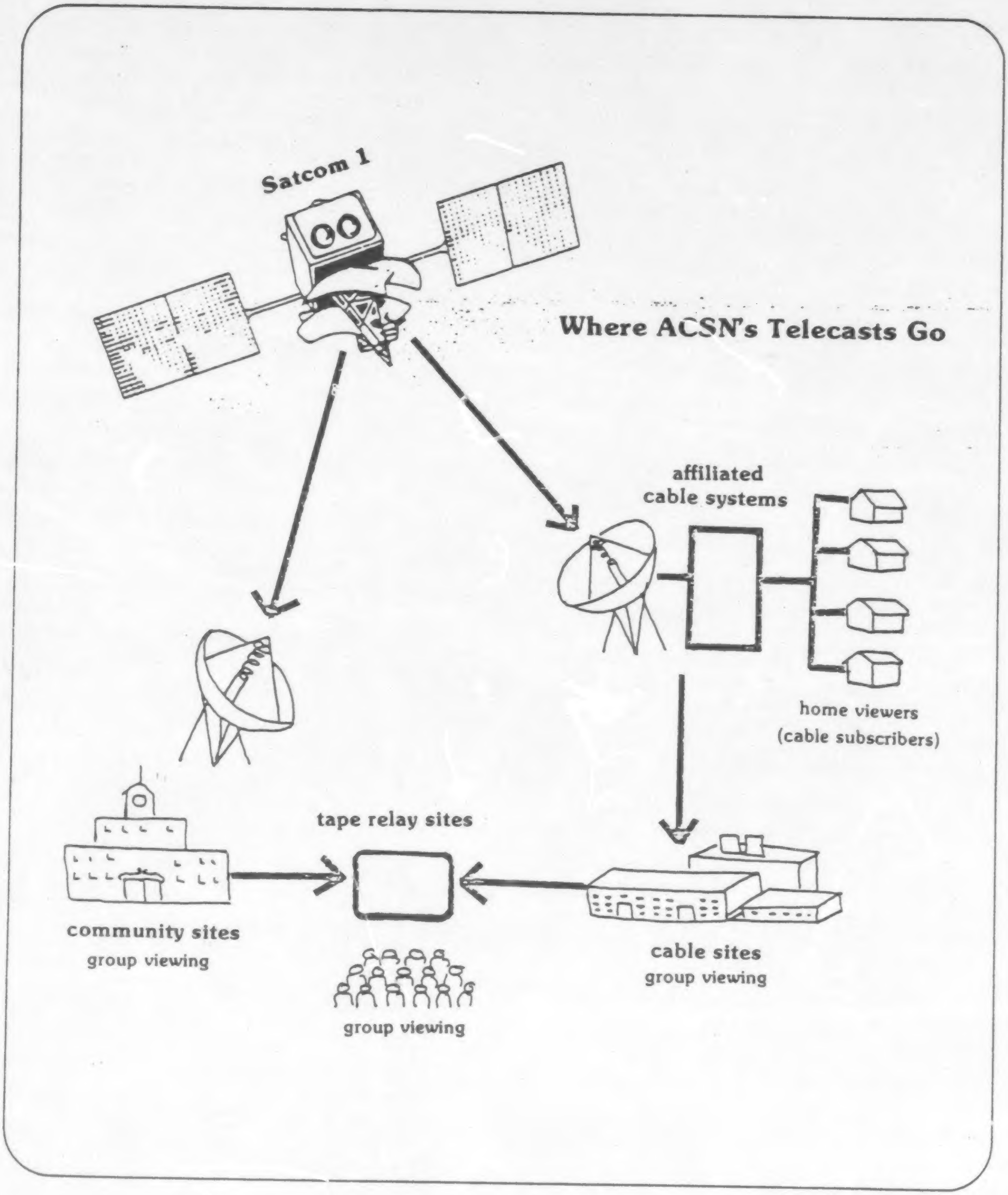
While the cost of "up-link" equipment has decreased, the real breakthrough that made ACSN possible was the dramatic drop in the cost of receiving equipment.

The equipment needed to receive satellite signals—a small parabolic antenna which looks like and is referred to as a "dish"—once cost over a hundred thousand dollars. Today, it costs about the same as a new automobile. Although a skilled technician must install the equipment, its routine operations and maintenance are much simpler to master.

While parabolic antennae aren't likely to replace the old rooftop versions right away, they are becoming more readily available on the open market. One major department store chain, in fact, recently advertised just such equipment for the "home" or the community. A few ingenious folks have even figured out how to make "down-link" converter for one-tenth the price of the antennae equipment, forcing satellite networks such as Home Box Office to consider the possibility of scrambling their signals so only legal, paid subscribers can receive the service.

Cable TV, Your Link to the Satellites

Of course, you don't have to buy a parabolic antenna or build a converter to link up to the satellite. You can subscribe to cable TV, provided a system has been set up in your community.



Where ACSN's Telecasts Go

Satcom 1
affiliated
cable systems
home viewers
(cable subscribers)
community sites
group viewing
tape relay sites
group viewing
cable sites
group viewing

Between 1972, when the Federal Communications Commission (FCC) opened the domestic skies to private enterprise (before that only the government could launch satellites), and late 1980, eight domestic satellites (domsats) had been successfully launched into service. Although cable systems have been around for some time, their major function before satellites was to transmit local and regional TV stations. Small 12-channel systems have long been common in areas like Appalachia where the terrain impedes broadcast signals.

With the advent of satellites, however, new CATV systems with 24, 36 or more channels and satellite-receive capability began to crop up everywhere. At last count, the National Cable Television Association estimated there are 4,300 CATV systems nationwide compared to a fraction of that number less than a decade ago. Some 1,500 of these systems are in Appalachia.

Collectively, CATV reaches into about 7.2 million homes across the country, including 2 million in Appalachia. These figures translate into a potential viewing audience of over 16 million people nationwide, nearly 5 million of them Appalachians. Moreover, the experts project that the number of home subscribers will more than double within five years.

Catching up with Progress

Anytime anything grows as fast and furiously as the telecommunications industry has in the last few years, there are bound to be some problems. For ACSN, it's the constant struggle to adapt new technology to Appalachia's capacity to use it successfully—or perhaps it's the other way around.

One such problem for ACSN is that Appalachia has many older CATV systems whose 12 channels are already filled by local stations. To solve this problem, ACSN has set up classroom sites where CATV systems have receive equipment so that selected ACSN programs can be fed through the CATV satellite hookup to the classroom site without having to use any of the 12 channels.

While this option does help to make the service available where it is needed, it still does not meet ACSN's objective of delivering its service directly into the home where it can reach nontraditional students—housewives, older people, all those who are unlikely or unable to go outside the home for instruction.

The situation is more complicated for other new networks which provide news, sports or other entertainment, however. A major complication is an FCC regulation that requires cable companies to carry all television stations within a 35-mile radius, as well as others "significantly viewed" in the area. Efforts, led by Turner Broadcast's Cable News Network (CNN), are currently under way to change the FCC regulation in areas where all cable channels are filled by "must carry" stations. CNN seeks either to be accorded "must carry" status or to have the regulation modified to allow cable systems to substitute CNN for a local station, if they so choose.

Unlike CNN, however, ACSN is not in competition with the major networks or their local affiliates and can effectively use cable hookup for group viewing at a school, library or other community facility. Nonetheless, any changes in the "must carry" rule are likely to impact upon ACSN's efforts to recruit the maximum number of cable home viewers

Another aspect of this situation is the probability that many of the 12-channel cable systems in Appalachia and elsewhere will, in the next few years, add satellite antennae and expand their channel capacities so that they can, in turn, attract new subscribers through new and more varied programming.

Talking Back to the TV

A final element that figures prominently in this burgeoning of electronic technology is the capability for two-way interaction between the home viewers and the program originators. Using a relatively simple computer process, selected homeviewers in Columbus, Ohio, right now can sit at home, watch a program on cable TV and, by pushing a button, respond to the person or situation appearing on the screen. Using a toll-free telephone hookup, ACSN routinely includes question-and-answer sessions and discussions between teachers or experts in, for instance, San Francisco or Houston and students scattered across Appalachia—and frequently other states.

While all this may sound like space-age fast talk, there's no doubt that within a few years many Americans will be able to tune in one channel to shop for new home appliances, another to participate in a professional workshop and still another to get in a few words at a city council meeting.

Of course, home computers, home video recorders and the telephone will play roles, too; but, then they already are doing so.

What may be difficult to accept about all this is the notion that we're going to end up talking to our TV sets—and getting answers. Well, if that notion does leave you feeling skeptical, then you haven't heard about the newest TV set now on the market. It comes with its own remote control that not only changes the channel but allows you to answer the telephone—through the TV sound system—without leaving your easy chair.

Appendix O

Venture Article, 1981

VENTURE Magazine, September. 1981

Betsy Frampton

Under Morse, ACSN plans to generate at least 70% of its $4.5 million budget for FY 1985

A Federal Agency's New Private Life

Its funding threatened, an educational TV network eases into the private sector

By Jim Ostroff

Imagine for a moment that you are a federal bureaucrat in charge of an obscure agency producing educational television programs for cable distribution in the 13 states of Appalachia. Imagine hearing President Reagan say that your parent agency, the Appalachian Regional Commission (ARC), which provides about 50% of your funding, has done a good job but has outlived its usefulness. Imagine witnessing a 46% cutback in the portion of ARC's budget from which your agency draws its funds. Would you be concerned?

"We'll be O.K.," says Harold Morse, who, but for a stroke of good fortune, would now be in exactly that position. Morse is president of the 10-year-old Appalachian Community Service Network (ACSN), formerly a federally funded offshoot of ARC but for a year now a private, non-profit corporation struggling to jump off the federal dole before it's pushed. The road from public to private enterprise, however, involves more than coming up with new sources of funding, according to Morse and other ACSN employees. It requires a change of philosophy and, inevitably, the abandonment of cherished beliefs about how best to serve the public.

In all likelihood, ACSN would find itself today in a perilous financial situation, with a diminishing role as a cable television programming outfit, and facing slow strangulation by competition from private cable companies, were it not for a silver-lined disaster that struck in 1978. That year, NASA's experimental ATS-6 communication satellite, which ACSN had been using free of charge, reentered the earth's atmosphere and was obliterated. ACSN was fortunate enough to obtain precious broadcast time on RCA's Satcom satellite, thereby avoiding extinction and gaining access for the first time to a national audience. The only hitch was that RCA was asking $500,000 a year for the transponder time, which NASA had provided ACSN for nothing. Unwilling to continue funding a project that would benefit the entire country, not just Appalachia, ARC voted to allow ACSN to set itself up as a non-profit corporation, which it did in September, 1980.

ARC agreed to provide $1.8 million for ACSN in fiscal year 1981 and $1.5 million in FY 1982, Morse says. The commission could continue to fund ACSN in FY 1983 and beyond, should the commissioners so decide, but is "not legally bound," according to an ARC spokesperson. The network plans to pay 11% of its costs from a combination of internally generated revenues and charitable contributions in FY 1981, with the rest coming from government sources, Morse says. The percentage of non-government funds is slated to increase to 31% in FY 1982, 51% in FY 1983, and about 75% in FY 1984, although the figures for the last two years are subject to revision, according to Morse.

The network provides college, graduate, and professional level courses that may be taken for credit at local colleges and universities. Approximately 50% of its courses are offered to undergraduates and graduate students, 30% to professionals seeking continuing education, and 20% feature community service programs, such as home repair. As ACSN is transformed from an Appalachian service agency to a national educational programming network, the community service offerings will gradually give way to more professional courses and teleconferencing.

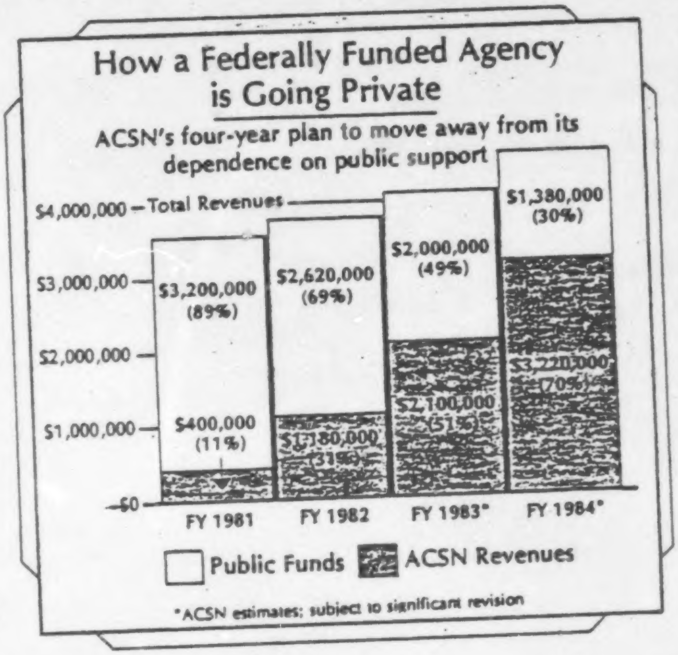
In its fight to establish financial independence, as outlined by Morse, ACSN will tap five distinct sources:

- Subscribers. ACSN currently derives $120,000 a year from its 1 million subscribers, whom it charges 1¢ a month. The network hopes to expand its subscriber base to four million in FY 1983 and five million in FY 1984, and to introduce slightly higher fees. (The subscriber base is growing rapidly. As late as September, 1980, subscriber numbers were as low as 350,000.)
- Tuition. ACSN currently receives $110,000 from 3,000 students enrolled in its courses, and expects revenues of $350,000 from this source next year.
- Charitable contributions. Although negligible to date, such contributions will amount to about $300,000 in FY 1982 and could rise to between $500,000 and $1 million a year thereafter.
- Sale of excess transponder time. Of a total allotment of 111 hours per week, ACSN sells 22 hours for an annual profit of $100,000. If a new Satcom satellite goes

into orbit in October as scheduled, the network should receive additional time, which it would likely resell.

- Uplinking. This is the practice of providing a network's hook-up—and subscribers—to a customer who may be seeking a wide audience for a special occasion, such as a sporting event. Income from uplinking will exceed $100,000 this year, and may reach as much as $400,000 in FY 1982.

Morse says he expects to receive between $1 million and $2 million in public funds in FY 1983 from a combination of ARC, the Corporation for Public Broadcasting and several hundred thousand dollars worth of grants for teleconferencing training programs. He maintains that ACSN is capable of surviving a severe funding shortfall. "We counted on ARC support only until next year and are already getting ourselves into a position where we can function without the commission," he explains. "If it were eliminated, this would have some impact, but it would not have a crippling effect. The network will survive."


How a Federally Funded Agency is Going Private

ACSN's four-year plan to move away from its dependence on public support

*ACSN estimates; subject to significant revision

It took only a vote by the commissioners of ARC to complete ACSN's legal transition from the public to the private sphere. But to actually become a private corporation, in spirit as well as fact, was a complex and, for those who lost jobs in the reorganization, a painful process. "When you sign the papers, it doesn't automatically make you a corporation," says Judy Ballangee, a network spokeswoman.

"Even before we could begin our corporate life we had to develop a basic corporate structure, with a board of directors and three operating divisions: operations, programing, and marketing," Morse says. The 17-member board is now headed by Morse and Terry Sanford, the former governor of North Carolina who is now the president of Duke University. The board includes other notable citizens: Bo Stewart, an investment banker, who serves as vice-chairman; Ginny Fox, the PBS representative; and Phyllis George Brown, wife of Gov. John Y. Brown.

The most visible changes were in marketing, Ballangee says. "Before, we weren't really selling anything to generate revenues, to support ourselves and to grow. Now we go out and market a product to people rather than provide it." One of ACSN's first discoveries was that it could market effectively with fewer employees than in the past. As a government agency operating in a distinct, geographical area, ACSN supported a network of regional representatives who provided customers with on-site instruction in the best use of its programs. But when it went national, ACSN quickly realized, Ballangee says, that the old system "wasn't a cost-effective way to do things." Now, she adds, they have replaced it with an "affiliate relations" department.

But it's hard to make sound decisions in these matters when you don't know who watches your programs and why. These questions, which were not addressed by ACSN, the government agency, are being tackled forthwith by ACSN, the private firm, says Linda Resnick, the network's marketing director.

As one of its efforts to fill the information gap, the network has commissioned a viewer profile. To analyze the marketplace a little more subtly than before (ACSN's only previous analyses were based on published Roper polls), the network ordered a study by the National Cable TV Assn. Says Ballangee: "We are trying to get together the statistics and substantiate them. This is a good example of how we operate differently now as a private business."

One other example: The staff was pared from 75 to 55 and the budget for FY 1981, originally $5.6 million, was slashed to $3.6 million, according to Morse. The reductions, he says, were part of an effort to streamline the agency and prepare it to act "as a telecommunications network" with the agility to respond rapidly to changes in the market.

ACSN is counting on its headstart in educational programming to weather competitive challenges from several major corporations, not the least of which is A.T.&T., which is offering televised professional education courses. "We've had at least two years of lead time to establish ourselves nationally and to build a high-quality, diverse program schedule that's receiving good support from across the U.S.," Morse claims. Resnik says she is confident too, noting, "Sure, we expect lots of competition in years to come. But . . . we anticipate we'll be the established ones and have our market share and others will come and try to take it away from us."

Morse says that the success of ACSN will depend greatly on the acceptance of its continuing education programs. "We are looking at creating a series of 'narrowcasting' programs," he says. "For instance, we're studying the possibility of creating a health satellite network that would offer special programs to doctors, nurses, and other professionals workers at about 225 hospitals."

"In general," adds Resnik, "we're studying the possibility of offering continuing education outside a university structure, to offer professional development courses to lawyers or doctors, for example. A doctor could be charged $575 to receive credit for a [TV show] he just watched" in lieu of attending a specific in-school course as physicians must now do to remain current with changing medical procedures.

Looking to fiscal 1984, when the network should be a functioning, private corporation, Morse said it seems unlikely that it will issue stock or seek a merger to acquire new capital. It is counting instead on the success of selling its product nationwide, and developing new ones, as a means of providing liquidity for expansion. "If our narrowcasting plan succeeds and we are able to sell special programs just for doctors, or engineers, we could spin this off into a new entity that might be profit-making."

Morse defends the role of ARC in establishing the network, and defends public subsidization of this soon-to-be private enterprise. "I think this is within the realm of the way government traditionally involves itself in R&D programs that have potentially great benefits—such as the early aircraft industry and transportation system. I think we are one of the few [such projects] that has actually lived up to the federal government's rhetoric and is becoming a corporate entity." ■

Appendix P

General Release, September 14, 1981

ACSN
Appalachian Community Service Network

September 14, 1981

IMMEDIATE RELEASE

GO TO COLLEGE, IMPROVE YOUR PROFESSIONAL SKILLS WITH ACSN EDUCATIONAL CABLE NETWORK

WASHINGTON, DC — Take a college credit course, improve your professional skills, even learn to play the banjo or repair your car. You can do it all and more this fall with ACSN.

The only satellite-to-cable network that brings lifelong learning opportunities into your home, ACSN's fall schedule includes graduate and undergraduate telecourses for credit, an assortment of programs for professionals, and general community service programming that covers everything from art to the weather.

ACSN, seen locally on channel _____ (contact your local cable company for the channel number in your area), offers ten telecourses for the fall of 1981, ranging in subject matter from government to the humanities to marketing. ACSN's telecourses are credited by over 60 colleges and universities nationwide.

The programs for professionals add another dimension to the ACSN schedule, providing busy professionals with the chance to improve their skills and to keep up with significant new developments in their fields. ACSN's professional development schedule for fall includes programs for teachers, engineers, business people, and day care providers.

ACSN also has a variety of general community service programming designed to stimulate lifelong learning. There are programs to help you learn more about other countries and other peoples; programs to help you understand and deal with interpersonal relationships; and programs to answer questions on health care, home decorating and many other subjects.

Whether your special interest is a telecourse for college credit, a professional development course or a program that can enrich your day-to-day life, ACSN's 1981 fall schedule has something to offer you and every adult member of your family.

(MORE)

ATTENTION: TV/Education Editors

ACSN PROGRAM DESCRIPTIONS

Following is a brief description of each telecourse and professional development program offered in ACSN's 1981 fall schedule. For more information on the telecourses, contact your local college or university or write ACSN, 1200 New Hampshire Avenue, NW, Washington, DC 20036.

Telecourses

American Government I: surveys the historical, philosophical and economic bases of the western political system as it integrates basic political science theory with contemporary American governmental action. Undergraduate.

Applied Sketching Techniques: reviews the basics of freehand drawing and introduces more advanced techniques (sequel to Freehand Sketching). Undergraudate.

Family Portrait: focuses on personal awareness, growth and satisfaction in interpersonal relationships, and presents both new ideas and traditional theories in an objective view of marriage, the family and alternate lifestyles in contemporary America. Undergraduate.

In Our Own Image: introduces the humanities through art forms and the people who create them, and examines how each branch of the arts communicates and the criteria by which they are judged. Undergraduate.

Earth, Sea and Sky: surveys astronomy, meteorology, climatology, oceanography and geology in a study of our planet's place in the universe. Undergraduate.

Writing for a Reason: introductory English composition course with emphasis on basic writing skills and the way language functions historically, socially and psychologically. Undergraduate.

Marketing Perspectives: an introduction to business with emphasis on the fundamentals of marketing and the profitable operation of a business enterprise by combining marketing theory with visits to plants and interviews with prominent leaders in business, industry, government, and consumer agencies. Undergraduate.

Loosening the Grip: provides alcohol education to those interested in better understanding the effects of alcohol on individuals, families and communities at large. Graduate/Undergraduate.

Coping with Kids: uses principles of Alfred Adler's Individual Psychology to explore the problems of discipline and communications among youngsters. Graduate/Undergraduate.

Teaching Children to Read: carefully balanced blend of specific techniques, theoretical discussions, practical strategies and innovative ideas designed to supplement K-6 teachers' existing reading programs. Graduate.

Professional Development

A Different Understanding: designed for teachers who work with learning disabled children, covers problems and improvements in identification and assessment of learning disabilities and recent changes in programs and services.

Fundamentals of Engineering: reviews basics for engineers who plan to take the National Fundamentals of Engineering (Engineer In Training) examination, the first of a two-part examination required in most states for becoming a registered professional engineer.

Literacy Instructor Training: provides training for tutors, teachers and paraprofessionals who work with adults teaching basic reading skills. It also presents management skills for establishing and maintaining successful instructor/learner relationships.

Personal Time Management: offers a practical, pragmatic "how-to" approach for organizing and making better use of valuable time.

Speed Learning - The Art of Reading: goes beyond "speed reading" to include the entire reading, learning, thinking process.

Spoonful of Lovin': is designed to provide pre-licensing training for Family Home Day Care providers and will benefit anyone who works with children.

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Go To College
Add 1

America's community service satellite network, ACSN cablecasts a full 64-hour per week schedule, seven days a week. Viewed in more than a million homes nationwide, it is the only fully operational satellite cable programming service with a fulltime commitment to adult education.

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Contact: Judy Ballangee
(202) 331-8100

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